RAILROAD MAN'S MAGAZINE

Railroad Building in Brazil

JUNE

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RAILROAD MAN'S MAGAZINE

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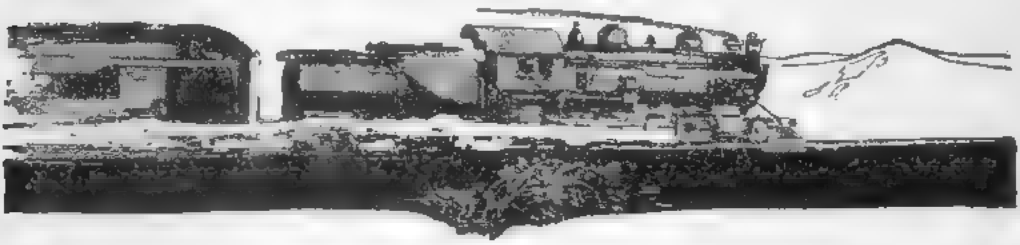


ON THE PAY-CAR.

How the Railroads Distribute Motive Power for the Pocketbooks of Their Great Army of Workers.

BY CHARLES FREDERICK CARTER.

EVERY time a railroad earns a dollar it counts out forty-one cents and lays it aside for the boys. But the railroad does not get the other fifty-nine cents. The bondholders take thirteen and a third cents before the change is swept into the till. Then the collectors for the coal and the oil companies present bills that call for eight and two-thirds cents; the material men insist on immediate delivery of another nine and a quarter cents.

And so it goes. If the railroad has a nickel left for its very own, it considers itself fortunate.

When a railroad has to haul a ton of soft coal fourteen miles to earn a nickel, as the New York Central did in 1910, it acquires a proper appreciation of the value of money. However, I did not set out to talk about the railroad's nickel, but about the forty-one cents the boys get.

Thirty years ago, when very few men were needed to run the occasional trains on the new roads west of the Mississippi, the pay-car was wreathed in a halo of romance. The coming of that vision of yellow paint and varnish, drawn by a little eight-wheeled locomotive whose brass-trimmed jacket was polished until it dazzled the eyes, was an event.

The paymaster on one of those roads had

something akin to a "snap." After riding over the lines, distributing a few gold pieces occasionally, during a journey that required four or five days, all that he had to do was to balance his accounts when he returned to headquarters. Most of the month he was free to go.

The railroads have grown so much in the last thirty years that the paymaster's sinecure is gone forever. The railroad paymaster of to-day shovels coin and currency over a counter eight hours or more a day every working day in the year.

Consider for a moment what the paymasters of the railroads have to do. In 1911 the railroads earned $2,810,735,000. Forty-one per cent of this vast sum would amount to $1,152,401,350 to be paid, not in one lump sum, but divided into about two million separate payments, nearly every one of which included odd change.

A railroad is just as careful to pay each man his wages as it is to see that no one receives a cent too much. One cent isn't a very large sum, but if each paymaster was to give each man a cent too much each pay-day the railroads would be about two hundred thousand dollars out of pocket at the end of the year.

Nearly all of these two million separate sums have to be conveyed to the recipients in some way. West of Chicago the draft system is extensively used; that is, drafts are made out for each employee's monthly wages and sent through the railroad mails to station-agents or other officials for distribution. The draft system was introduced some twenty years ago, and, like all other innovations, it caused considerable trouble, and still more grumbling.

But matters soon adjusted themselves. The inconvenience in getting drafts cashed disappeared, and with them the grumbling.

Fills Out a Time-Ticket.

In the East the pay-car has always been used on the majority of roads. In recent years the conviction has been growing that the cash system is better. It saves the labor of drawing drafts and is more convenient, both for the road and for the men. The Pennsylvania system, which paid its men in drafts for a number of years, recently returned to the pay-car, which runs over every mile of the main line and all branches once a month disbursing money.

Before any drafts are made out, or before the pay-car can start on its rounds, certain formalities must be observed.

An engineer, for instance, on finishing each day's run fills out a ticket, giving his own name and the name of his fireman, the number of his engine and of the train it hauled, time of departure from one terminal and of arrival at the other, number of miles run and the time spent in switching.

This ticket he drops into a kitty at the roundhouse. The accumulated tickets are collected by the roundhouse foreman or his clerk, checked up and sent to the office of the division superintendent, where they are carefully compared with the train-despatcher's records and the proper amounts entered on the pay-roll.

Each class of employees has its own pay-roll, which is a large sheet of durable paper. Each regular employee has a special line on the roll. This saves time for the paymaster.

When the Auditor Finishes.

From the division superintendent the pay-rolls go to the general superintendent, who examines them, signs them, and forwards them to the auditor of disbursements. Here every item is once more carefully gone over and checked up from the original time-slips, which are compared with other data.

When the auditor finishes the pay-rolls they are absolutely correct. From the auditor the pay-rolls go to the paymaster, who draws from the treasurer the money necessary to pay them in such amounts as are needed from day to day.

In New York State the paymaster works hard. Some years ago a law was passed which required that employees be paid twice a month in legal tender, not in checks, drafts, or any other substitute.

The monthly pay-day is a traditional institution on railroads. Everybody adjusts his affairs on that basis. No one complains very much at being obliged to wait three or four hours for the pay-car when such things happen but once a month, but to do so twice a month is rather trying.

The growth of the paymaster's department on the New York Central is a fair example of what has been going on all over the country. John R. Burdett, the white-haired paymaster of the New York Central, was the entire clerical staff when he entered the paymaster's office in 1873. Commodore Vanderbilt was the active head.

In due time Burdett became paymaster, and was obliged to have more help. Now he has a second paymaster, twenty clerks, and four pay-cars. The entire force and cars are kept busy from the first to the thirty-first of each month delivering the forty millions of dollars that the road disburses among its thirty thousand employees each year. In short months they have to work overtime.

Paymaster Burdett is always accompanied on his travels by Bob Smith, who began braking on the Central in 1866, and by Tompkins—no one calls him by his given name—who has only been on the road since 1876.

Must Be Quick with a Gun.

Both men are quick with a gun, which is one reason why Burdett desires their presence. Then, too, both men have ridden over the road for so many years that they know everybody in the employ of the company. Their wide acquaintance is valuable in expediting work.

Paymasters take pride in the speed with which they can run through a pay-roll. I once timed the paymaster on the Rock Island. He paid an average of nine men per minute.

Burdett has a record of twenty men per minute. This is not his maximum speed, however. He has actually paid off two thousand men in one hour, or five men every nine seconds. He did not follow the universal routine of the pay-car, for the money had been placed in envelopes for the employees of the shops at West Albany, one of the very few places where railroad men receive their wages in envelopes. The envelopes were passed out as the men filed past in prearranged order, so that there was no delay while finding the packets.

The two paymasters do not count the cash for the whole road. Half a dozen clerks may be busy paying off in as many different places at the same time.

Various means are adopted for delivering wages to the men. The object is always to pay off with the least possible interruption of work.

In the general offices, where a thousand persons may be employed, two clerks from the paymaster's office with tin boxes of currency and bags of coin are personally conducted through the departments by a bodyguard of detectives.

A few, including those who are paid by the week, go to the paymaster's office for their money.

Getting the Men Together.

In the yards in New York and the immediate suburbs, where traffic is too dense to permit the use of the pay-car, employees are notified to appear at a certain place at a certain time for their money. At the shops various means are adopted for distributing cash.

Those not employed in the principal terminals receive their money from the pay-car. Notice is sent ahead some hours in advance, so that employees can be assembled and cause the least possible inconvenience to themselves or to the paymaster.

Whenever possible section-men work near a station when the pay-car is expected. The paymaster, on the other hand, is notified that this bridge-gang will be at work on that bridge, and that certain trains will be met or passed at such and such stations.

A signal for the pay-car to stop at an unexpected place would be regarded with suspicion.

Except in minor details, pay-cars everywhere are the same, while the routine of life on board and the methods of payment are almost uniform

It was my good fortune to be a guest on the Rock Island pay-car a few years ago. I had an opportunity to study the methods at leisure. Drafts were used on the greater part of the system, but the pay-car was still operated in and around Chicago and for certain places on the line where the bankers did not care to cash drafts.

The old Rock Island pay-car was built in 1856 for a passenger-coach. In 1870 President Ridley had it rebuilt as a private car, which could also be used for a pay-car, and christened it the "Gazelle." Later the name was effaced and the number 400 substituted.

Car Looks Like Arsenal.

In its long service two little hollows had been worn in the mahogany counter by the attrition of money. These hollows were preserved from the hands of the master car-builder when the car went to the shops, for they had become a sort of fetish to the men who had made them.

The pay-car was scheduled to leave the

Rock Island depot at 8.45. Five minutes before that time a man arrived from the paymaster's office, bearing aloft an empty coin-tray. He was Frank, the colored porter, who for years and years had worked for the pay-car.

He carried a .45-caliber pistol on the right hip, a weapon so large in proportion to him that it seemed to tilt him up in front. Frank never went without his gun while the pay-car was in commission. Paymaster Purdy assured me that it had never been loaded.

Behind Frank came Paymaster Purdy with a hand-bag filled with bills, Assistant Paymaster Covington with the pay-rolls, Special Agent Shields with a canvas bag of coin on each shoulder, Conductor Keelan, and Flagman Doak.

The procession entered what looked more like an arsenal than anything else. The entire force carried loaded revolvers.

A revolver hung in a holster behind the counter in easy reach of the assistant paymaster's right hand, while another reposed in a holder at a window near to the assistant paymaster. Close beside it hung a leather "billy" a foot and a half long, and just beyond stood a repeating rifle.

On the paymaster's side of the car was a number of revolvers, and on a table close enough to be reached by a short step lay another rifle. Six feet farther back on a settee lay other rifles ready for instant use. The engineer and fireman were also well armed.

Pay Off at High Speed.

The facilities for paying out money were so arranged that no one need make an unnecessary move. There were two doors at one end of the car, one for entrance, the other marked "Exit." Between the doors and the counter was a space not more than six feet wide.

Over the counter was a strong partition with a window just large enough to give a man space to move his arm in signing the pay-roll. Crosswise of the counter was a rack with twenty compartments for the pay-rolls, which were so classified that with a single movement the assistant could extract the one wanted.

The rolls were folded so that they could be opened wide with one movement of the assistant's right hand.

The other half of the counter was occupied by a large rack with forty compartments for greenbacks. At the bottom of this was a rack for silver. At right angles to and adjoining the counter was a broad shelf for stacks of bills. When a denomination was exhausted the paymaster need only to reach to the rack for another package.

Back of the counter was a comfortable sitting-room, which also served as a dining-room. The kitchen was set up wherever Frank happened to place the chafing-dishes. The paymaster and his staff always fared sumptuously, for Frank worked culinary miracles with the chafing-dishes.

The rest of the car was given up to two sleeping-compartments, four berths in each, lockers, cupboards, a pantry, and a parlor.

Call Men by Name and Number.

In running through the yards the pay-car paused to allow Special Agent Shields to pay the towermen, who drew near as the car approached. Near Sixty-Ninth Street a half-dozen short blasts on the whistle announced that the car was nearing a section-gang. The engine had not come to a stop when the section-boss, a tow-haired Swede, appeared at the counter.

"Johnson, Gustaf," announced Assistant Paymaster Covington as he took a pay-roll from the rack and spread it open. "Fifty. Twenty-two."

The first number was to inform the paymaster that fifty dollars was due Johnson. Bills to that amount were snapped from the shelf in front of the paymaster and tossed into the hollow on the counter.

The second number notified Johnson that he was expected to acknowledge the receipt of his wages by signing his name on the line numbered 22 in large red figures. To make sure that he signed properly the assistant paymaster covered the remaining lines with a large blotter.

Johnson wrote as directed, held his right hand at the edge of the counter while he swept the money into it with the left, and stood aside to identify his men.

"Johnson, John," announced the assistant paymaster. "Twenty-eight ninety. Twenty-three."

Ignoring twenty-three, the second Johnson took his $28.90 and turned to leave the car.

"Come back here, Johnson, and touch the pen!" exclaimed the assistant paymaster.

The careless Johnson returned and grinned, he grasped with thumb and forefinger the end of the penholder held toward him for a fraction of a second, then vanished.

The ceremony of "touching the pen" is one of the most inviolable ceremonies of the pay-car. It has been practised for many years, and is still scrupulously observed in pay-cars when employees write with great difficulty. Such men are required to touch the pen with thumb and forefinger, as symbolizing the act of signing the roll, after which the assistant paymaster signs the name in the proper place.

All men who can sign their names without unreasonable delay are required to do so. When a gang has been paid, the foreman, who has observed the routine, signs his name at the bottom to attest the fact.

The third man in this gang was also named Johnson. So were the five who followed him. As the last of the clan accepted his money the assistant paymaster turned to the conductor, whose hand was on the bell-rope, and the car was soon in motion.

Wherever there were more than two men the pay-car stopped. Solitary employees had their money handed to them from the steps of the passing car.

Wherever there was a large number of men the conductor and flagman stationed themselves outside to keep a sharp lookout. Special Agent Shields took his place beside the counter and watched each man as he entered.

Shields was also exceedingly busy watching to see that each man left with his own money, for an amazing amount of carelessness was displayed. At very frequent intervals a man would leave a bill or a coin on the counter or drop it and walk away, unheeding until he was called back.

Paid 700 Men in Five Hours.

One fireman left a twenty-dollar bill; another touched the pen and forgot to take his month's wages.

Affairs were quickly adjusted by Shields, and the line moved steadily on.

Deducting one hour for lunch, the pay-car traveled fifty-five miles and paid seven hundred men in five hours. Three days were required to pay wages in Chicago.

Then came a trip into Iowa. The rest of the month was devoted to drawing drafts. A rapid writer can prepare from nine hundred to a thousand drafts in a day, while the paymaster can sign his name to four hundred and fifty in an hour when he is pressed for time.

In the old days, when all Rock Island employees drew their money from the pay-car, fifteen days' travel were necessary each month. The paymaster was allowed to choose his own engineer, fireman, conductor, and flagman.

Their sole duty was to accompany the pay-car. As the engineer and fireman were idle for fifteen days, the brass and steel of the pay-car engine were always as gorgeous as plumbago and "dope" could make it, while Frank and the master car-builder vied in keeping the pay-car in order.

But times have changed. On a busy road nowadays train and engine-crews are not assigned exclusively to the pay-car. Whenever it can be conveniently arranged the same men are sent over the division with the pay-car; and in all cases picked men are assigned to that duty, for it is important that only quick-witted, cool-headed men should be entrusted with such responsible work.

A pet obsession of newly arrived Italians is that they can beat the paymaster by giving their identification-checks to some one else and then protesting with many a shrug and grimace, "Me no getta da mon'."

It does not take long to convince them that the ruse will not work. On a few occasions, in spite of all precautions, men who were not new have actually succeeded in establishing false identifications on the New York Central and in drawing money that belonged to some one else. Every one landed in jail within twenty-four hours.

The paymaster's principal trouble lies in completing the pay-roll. Every month there are a few men who fail to visit the pay-car. This means more work for the paymaster, who must hold the money until the next month.

Sometimes wages are never claimed. The paymaster of the New York Central holds about fifteen hundred dollars in wages that have been unclaimed for years.

A pay-car seems to become involved in a bewildering maze of difficulties, not the difficulties that bring death or injury to its occupants, but derailments.

Paymaster Burdett was on the Rome, Watertown and Ogdensburg in the winter of 1891 in old car 480, which has been in service from 1875 to the present. He was

stopped by snow, and tried to return to Ogdensburg.

On the way 480 tried to cut a curve. When the dust had settled Burdett told the conductor to flag an engine that was following.

"Oh, it isn't necessary," was the answer. "We're in to clear, all right. We're sixty feet from the rails."

The car body had landed right side up in the woods, while the trucks had gone on in another direction. Nobody was injured severely, though shaken up and bruised.

As the car was equipped with an old Baker heater and there were plenty of provisions on board, the crew camped for the day. On the following morning an improvised pay-car reached them, the cash and pay-rolls were transferred, and the trip was finished without delay.

The Rock Island's old 400 went into the ditch many times. A broken switch at Stockbridge, Missouri, held engine and front trucks of the car on the main line, while the rear trucks tried to take the siding.

The car bumped over the ties at thirty miles an hour, then turned completely over, and landed on its roof.

"We was makin' 'bout a hundred mile an houah," declared Frank, the porter. "Mistah Mack was jest lettin' her out, I can tell yuh. All to once, *bumpety bump, bumpety bump,* all de furniture commence to jump up like it was tryin' to go froo de roof, an' de watah-cooler dumped on me!

"Did I hollah? Say, boss, what would you do ef somebody tried to drownd yuh by pourin' ice-watah down youah back? De wust of it was dat Mistah Purdy an' de rest lef' me dere 'bout a week.

"When dey did finally come to de rescue, stid o' helpin' me down an sympathizin' wif me, dey jest stood aroun' an' laughed at me till I dun thought dey'd go into 'niption fits; I suttinly did."

The pay-car usually escapes highwaymen. This is because pay-cars are operated on the hypothesis that a robbery may be attempted at any moment. Every possible precaution is taken to prevent it.

There are never fewer than seven armed men with the pay-car; often there are more Every man is chosen for courage and skill in the use of firearms.

The engineer and fireman maintain a sharp lookout; there is always at least one man on the ground whenever the car stops for a moment, and one on the platform.

The odds are too great to tempt any band, however desperate, to try to hold up a pay-car, especially since the reward would not be at all commensurate with the risk, even if the attempted robbery was a success, for no pay-car ever carries a very large sum. Cash is forwarded to the paymaster as it is needed.

Kidnaped the Pay-Car.

The inevitable exception occurred at Atlanta, Georgia, twenty-seven years ago. By violating every precedent and every rule for the handling of pay-cars, besides ignoring the dictates of common sense, the Richmond and Danville Railroad achieved the distinction of having its pay-car stolen and the paymaster kidnaped

It seems almost incredible, but the car, with twenty-five thousand dollars on board, was switched onto a lonely siding in the suburbs of Atlanta for the night with only the paymaster, A. Groser, and Porter Patrick Ward on guard. At about two o'clock in the morning Groser was awakened by the motion of the car. It seemed to be running at the rate of forty miles an hour.

Rousing the porter and telling him to strike a light, he ran to the platform and set the brake. Then he climbed to the top of a car that was coupled in between the pay-car and the engine.

He could see no one.

"Where are you going?" he yelled.

"To Bell Junction."

"What are you going there for?" he demanded

"You will find out soon enough. You are the man we want."

With that there came a volley of revolver-shots, but Groser was not hit.

He hurried into the car, and, giving the porter a revolver, told him to shoot any man who tried to touch the brake.

The car had almost come to a standstill Groser sprang off, and, hastening to the houses in the vicinity, he gathered an armed force of half a dozen men

They started back to the pay-car. They discovered that the car had been wrecked. The porter was found senseless a hundred yards away.

The highwaymen had fled without obtaining a cent.

It was afterward learned that six men were concerned in the plot, of whom but one was captured.

"I THINK A BIRD I'M AFTER IS ABOARD.

Frank Nelson, Read This!

BY HECTOR FULLER.

A Man Who Meets with a Startling Adventure on His Vacation Has a Chance to Keep His Promise.

I HAD no intention of trying to write a story when I started on my vacation. I had been working on the Wendell, Georgia, *Tribune* for a year, and was entitled to two weeks on pay, though I really had no particular idea what I wanted to do. Finally I decided I'd go down to New Orleans

Billy Coulon, conductor of a fast-freight, who had been a pretty good chum of mine, suggested that I make the trip in his caboose, without cost; and as travel on freight-trains is rather discouraged by the authorities, I shipped my dress-suit-case by express and boarded the freight.

It was summer-time, and though the old freight-train rather loafed around the country and we were often stuck on sidings to let the passengers go by, it was a lazy, enjoyable sort of traveling, sitting on the back-end of the caboose, and watching the sun-lit country, and the peaceful, don't-care-a-hang air of the small farmers who always had time to stop work and watch us go by.

It was the last sort of a place in which one would have looked for a real adventure.

We stopped at a lot of small places and had time to eat, and on the whole I was pretty comfortable, but all the same I was pretty glad when we pulled into Atlanta, our first big city, where we had to wait for about three hours. There was a lot of switching to be done about the yards, so Billy suggested I could go up into the town and look around a bit, but to be sure and get back inside three hours.

It was beastly dark, and all freight-trains look alike in the dark—at least to

an amateur. So I wandered around, breaking my shins over switches and dodging switch-engines, and all the time in a sort of a panic-fear that I had lost Billy Coulon and my free passage south.

I was going through a long, narrow cañon made by two freights, when I was startled by a man slipping out between two cars and grabbing me by the arm.

One of the things that has always cursed my life has been a constitutional timidity. It's my own timidity, so I won't call it cowardice, but if it was any one else's—

I admit I was scared a little, especially when this unknown man applied pressure enough on my arm to pull me between two freight-cars. Then he struck a match on his pants with his disengaged hand—the other hand was holding me—and flashed it in my face.

"You're not a bull!" he said and there was something of contempt in his voice.

"Of course—not," I answered, not knowing what on earth he meant.

"Seen any bulls around here in the yards?" he asked fiercely.

"No-o-o," I answered in all sincerity, "there's a train on another track over there loaded with cattle—"

"Oh, go to!" he snarled, "don't try to kid me."

I explained to him that I was not in the mood or the temper to "kid" anybody. That I was just traveling via freight in search of a vacation, and that I was riding in company with Billy Coulon, conductor of a freight-train which I could not find in the darkness.

"Goin' New Orleans way?" asked the stranger, in that strange, hushed voice of his which was very distinct and unpleasant.

"Yes," I answered.

"This is it then." He paused for a moment. "Got a cigarette?"

I handed over the box. He took one and put the box in his pocket.

"You're a queer sort of a tramp," he said, as he inhaled the smoke from my cigarette. "Look here. This is the freight you couldn't find. I'm going out on it, too, but the conductor doesn't know it. Nobody knows. I want to find out if the bulls are after me. There's one guy that's been trailing me all the way from St. Louis. He's dressed like a railroad man; got iron-gray hair and a square jaw; two teeth in front gold-filled. You drop back to that caboose o' yours and see if there's any one there looks like him. Don't you say a word to any one else; then come back here, make some excuse or another, and let me know."

"Very well, I'll do it," I said. I would have promised anything to have got away from him just then.

"And don't fail, see, young feller," he snarled. "You won't see me, but I'll be close beside yer and—see this!"

In the dim light he showed me a big revolver that looked to me like a Gatling gun.

I think I may have had some idea of getting to the caboose and warning them about my desperate friend, but the sight of the gun, added to my constitutional timidity, cured me of that idea.

"I'll do what you want me to," I said tremblingly.

I hurried down the track to where the welcome lights of the caboose shone out, and on the way I passed one of our brakemen who hailed me cheerily and told me I was in plenty of time. I had half a notion, then, to tell him of the man forward, but it seemed to me I saw a shadow a car or two back and I remembered that the man had said he would be close to me. So I kept my mouth shut.

Billy was around the caboose, busy as could be, but he found time to yell out a welcome, and to say that we were going to pull out in a minute or two. With the thought of that awful gun in the strange man's hand, I plucked up sufficient courage to ask Billy if he expected any other passengers, and even when he said "No" to look in the caboose to see if any one was there.

The place was empty save for myself, and so I made my way alongside the freight forward again, sharply on the lookout; but though I was sure I had not passed anybody, my importunate crook reached my arm from behind and, as before, pulled me between the shadow of two cars.

"Any one there?" he asked.

"Not a soul," I answered, "and I asked Billy Coulon and no one's going on the train but me and the crew."

"Good," said the stranger "What's your name? Who are you?"

I told him.

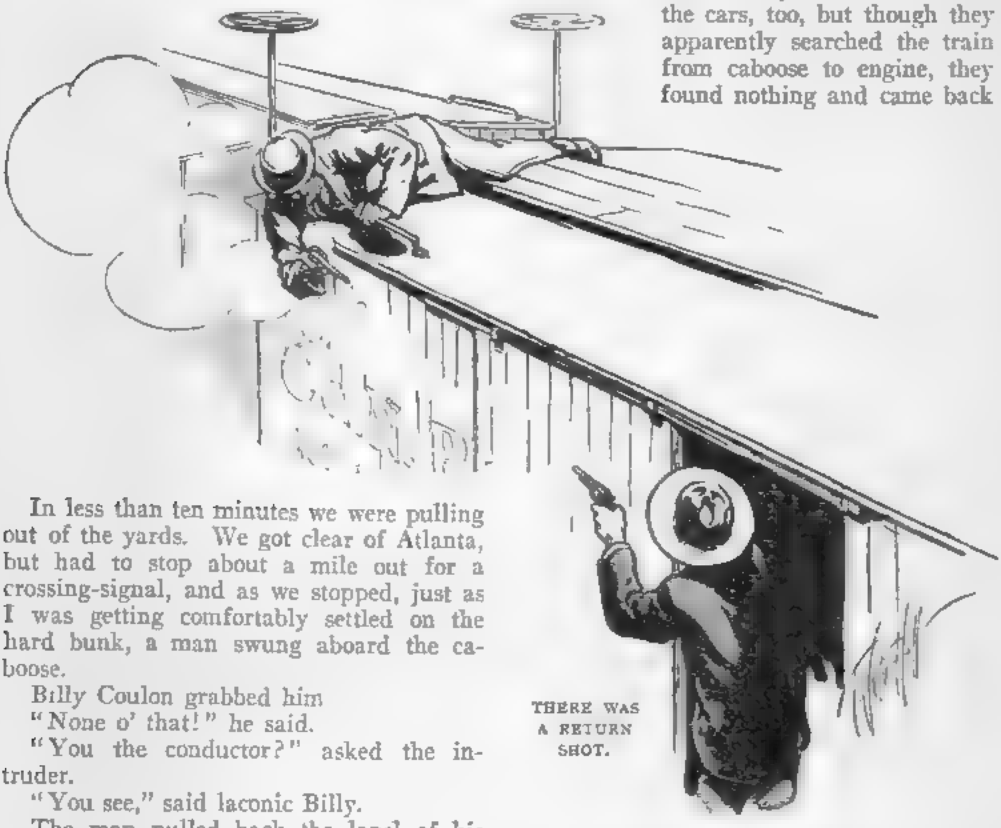
"Poor devil of a newspaperman, eh! Well, I'm Frank Nelson, and they say I'm a crook. That's none of your business. You've done me a favor. I guess I've given

the bulls the slip, and they think I'm making north. Don't say anything to anybody about having seen me."

"But where will you—" I began.

"Cheese it, bo," he said, "I duck under here. Skiddoo!" and with the word he seized hold of something under the big box car, and swung himself neatly out of sight.

I made the best of my way back to the caboose.



THERE WAS A RETURN SHOT.

In less than ten minutes we were pulling out of the yards. We got clear of Atlanta, but had to stop about a mile out for a crossing-signal, and as we stopped, just as I was getting comfortably settled on the hard bunk, a man swung aboard the caboose.

Billy Coulon grabbed him

"None o' that!" he said.

"You the conductor?" asked the intruder.

"You see," said laconic Billy.

The man pulled back the lapel of his coat and showed a badge.

"I think a bird I'm after is aboard this train somewhere," he said. "Me and my partner have been on his trail since St. Louis. Who's this?" he asked, pointing to me.

"Friend of mine," answered Billy. "Got a permit to ride my train?"

"Certainly," answered the detective, and showed it.

By this time we were out in the country. In company with two brakemen the detective climbed out of the caboose and made his way along the top of the train. Billy waited a while and said he was going to follow them. He asked me to come along, but the top of a freight-car is a precarious sort of place, and hunting desperate criminals is not my job; and my constitutional timidity told me that the bunk was the best place. So I stayed.

I learned afterward from Billy that they knew every "empty" on the train, and that all of them were searched, the detective swinging himself down from the roof as handily as any old railroad man could have done. They looked between all the cars, too, but though they apparently searched the train from caboose to engine, they found nothing and came back to the caboose disappointed. I wasn't. The detective was pretty free with his conversation when he got warmed up, and he told us that the man he was after was Frank Nelson, alias Chicago Red, alias the Gopher, and that he was wanted for breaking into a number of small railway stations from which he had stolen express company blanks which he had filled in and was cashing all over the country. He had already served two or three terms in prison, and had sworn that he would never be taken alive.

"In that case we'll take him dead," said the detective, and fondled a big gun that was in a holster, half-hidden by his coat.

Somehow I didn't like the detective much. He was too cocksure. There was no doubt about who he was, for the man forward had given a good description of him, even down to his gold-filled front teeth. It was all very exciting, of course, but I was off on a vacation and had no desire to be mixed up in the capture of stray criminals, so I went to sleep.

It was late when I awoke next morning and we were just pulling out of a little town where the crew had secured some grub. Billy had secured a pot of coffee for me, and as we had breakfast together, he said:

"We're hitting a hard piece of the road now. We've got a seventy-two-mile run before we stop, and right through desert country. Ain't worth ten cents an acre, the whole lot of it," he said. He told me that when we stopped the detective, James Kennedy, had searched underneath the cars of the train. He was evidently puzzled.

"Found nothing?" I asked, with my mouth full.

"Not a thing! A flea couldn't have hidden on this train without our finding him."

The sun was pouring down and the air was glorious; so after breakfast I climbed up on deck—that is—on top of the caboose to smoke a cigar. As far as the eye could see there wasn't a habitation in sight. Here and there were straggly clumps of trees; the ground undulating and yellow, with dried grass and clumps of thick brush three or four feet high. Buzzards wheeled in the sky overhead, and save for them our long freight-train was the only moving thing in the dreary landscape.

For some reason, Kennedy, the detective, had been riding on the engine and now, as I lazily watched him, he was making his way toward the caboose. Suddenly I saw him stop, then kneel down, crawl to the edge of the car on which he was and peer over. I saw his hand go to his belt and a revolver caught the glint of the sun. Then I saw him lean over and—the train was making too much noise to allow me to hear the report, but the smoke from the gun showed me that he had fired. I leaned far over the side of the caboose and from the open door of a box car I saw an outstretched arm, and there was a return shot, from which the detective drew back.

There were two more shots. The train was making a good thirty miles an hour, heavy as it was, but I was so fascinated and frightened by this singular duel, that I peered over, lost my balance, and fell incontinently down the embankment, head over heels.

I was not much hurt. I sat up, and watched the fast receding train. No one had seen me fall, apparently. I could see the detective—he was game enough—swing himself over the side of the box car, then I saw the hunted man leap out and away from the train, firing a shot at the detective as he did so. Then—it was like a drama acted for my especial benefit—I saw the detective follow!

Both men rushed into the brush which, just here, ran close to the side of the railway. The train sped on, leaving them alone to fight it out; and me alone, with my constitutional timidity, to be the sole witness to the duel between the law and the lawless.

I was pretty well shaken up by my fall, but I remember the report of three or four more shots—fearfully distinct now that the train had gone—and then silence.

It was no business of mine, of course, and, after all, I was in a sorry fix stranded here away from civilization, so I sat down to think it over. I realized that neither of those two men hidden in the brush had any animosity against me, and all I feared was that I might be hit by a stray bullet. So I scrambled to my feet and started to walk up the railway track.

Bang! A bullet whistled uncomfortably near my head. I dropped like a shot and crawled into the brush.

Lying face downward in the shadow cast by a straggly bush about three feet high, the soles of my feet felt tingly from the nearness of my escape. The bullet had whizzed awfully close to my ear. It was evident that both Kennedy and Frank Nelson were not taking any chances. They knew—as I sensed—that probably no human beings were within miles and they were going to shoot at anything that stirred. Neither knew, of course, that I had tumbled from the train.

If I moved I was likely to be a target for both of them. It was my cue to lie still.

It was frightfully still after the rumble of the train had ceased—uncannily so to me who could imagine those two armed men crawling through the brush, trying to pot-shot each other.

I managed to get my watch out of my pocket. It was nine thirty. How long

would it be before the detective "got" his man, I wondered.

And then, as I lay there, I could hear my heart beating, beating with the strain of waiting for that first shot. I had nothing to do but wait—and be frightened.

There was a fool black ant digging in a depression in the ground that had been made by my elbow. I so detached my mind—through fright, I think—from the drama that was hanging tense around me, that the ant and I became company. I remembered having heard that an ant would not cross a line drawn by a man's finger in the ground. Lying there waiting, I tried it. The ant crossed it every time.

I don't know how many times I turned that poor ant back before I finally let him make a bee-line for freedom, but it seemed hours. Then I looked at my watch again. I had been there only twenty minutes!

It was fearfully hot. As one looked at the tops of the bushes the air was all adazzle and things beyond were distorted to the vision. The heat, however, was less oppressive than the silence. That was terrific. My ears just buzzed with the silence, and the echo of that lone pistol-shot still seemed to sing in them. There is no denying that I was horribly frightened. I was too frightened even to perspire.

About two hundred yards from me, and directly away from the railway tracks, was a solitary tree. I determined to try and crawl to it through the underbrush. Here where I was lying it seemed that I was open to attack or chance shots from all four sides. If I reached that tree, even though its trunk was a scant two feet in diameter, I would be protected in my rear. So I made up my mind and began crawling.

It seemed a fearfully melodramatic thing to do. The way I crawled and wriggled on my stomach reminded me, almost ludicrously, of dim-remembered passages from the "Leatherstocking" tales. The very fact that I was afraid, on this sunshiny day in the twentieth century, to stand on my feet and walk boldly forward seemed to set back the hand of civilization's clock. I was back in the pioneer ages—I, a mere cub reporter, innocently off on a vacation. The whole thing was unreal!

Still I kept crawling. I never raised my head higher than the brush about me, which effectually screened me and, so far as was possible, I never shook any of the bushes. I knew that in all probability two desperate men were on the lookout for the slightest sign.

Suddenly to my left, not very far away, a shot rang out! It was answered immediately by another shot from somewhere behind me. I flattened myself to the ground. There were two more shots and then—silence again.

I waited for another ten minutes—it seemed an hour—and then I started crawling again. My progress was so painfully slow that it was a full hour before I gained the harborage of the solitary tree.

When I got my back against its friendly trunk I found that the tree stood on the edge of a coulee, or draw, and at least this gave me the opportunity to overlook quite a bit of the ground ahead of me. So I decided to stop where I was and to hope that I was out of range of any shots.

My nerves, never very strong, were strung up to a fearful tension and my head just ached for listening—listening—and waiting.

Suddenly I almost screamed aloud! A hand was placed on my shoulder. I turned to find the face of the detective close to my own.

"Have you seen him?" he asked.

"No," I replied.

"How did you get into this?" he asked. Everything we said was whispered.

I told him how I had fallen from the train and how, since he and his quarry had disappeared into the brush, I had seen nothing of either of them.

"Hang him, he's hurt me!" said the detective.

He held up his right hand. It was covered with blood and had been shattered by a bullet. He held his revolver in the left hand.

"I can't load my gun," he said. He laid the revolver on the ground, and with his left hand tumbled out a handful of cartridges from his pocket.

"Load it," he said.

I had never loaded a revolver before, but somehow under his direction I filled the chambers for him. Then I took my handkerchief and bound up his hand as well as I could without hurting him, for which he thanked me curtly. Then he said grimly:

"It's me or him!" and crawled off through the brush to the right.

It was nearly two o'clock now, and I was getting over my fright and beginning to look at the situation more philosophically.

I sat perfectly still and waited—it was the hardest task I ever had in my life.

It must have been an hour later when off to my right there came in rapid succession four shots—then a pause of about a minute and then—one shot more.

I was so excited that I ventured to peer up a little above the brush, but all I could see was a small cloud of bluish smoke hanging close to the ground about a hundred yards away. No other sign.

It was useless to worry I knew, but somehow I felt that that last fusillade had been fatal to somebody. Some dreadful intuition convinced me that the duel had terminated.

Which one had been killed?

I had not thought at all about the ultimate outcome of this strange adventure. Beyond the thought that I might be shot by accident I had given no thought at all to what I was going to do.

It seemed to me that my best chance lay in keeping very quiet until nightfall and then, under cover of darkness, making my way back to the railroad and thence to the nearest town. So I resolved.

It may have been an hour after this—the silence all this while undisturbed—my ears still strained but never hearing a sound, when a voice, right at my ear, suddenly yelled:

"Up with your hands!" From somewhere behind me, standing erect with revolver pressed against the pit of my stomach stood Frank Nelson.

"What are you doing here?" he asked. "Have you been here all the time?"

"HAVE YOU BEEN HERE ALL THE TIME?"

I told him of having fallen from the train and how I had been afraid all day that I might be shot by accident. I also told him how both he and the detective had fired at me.

"So, that was it?" he said. "I remember taking a snap-shot at you and then wondering how it was that that bull got behind me in the brush. I thought it was him I was shooting at. Well, curse him, he won't shoot again in a hurry."

"Did you did you—"

"Yes, I got him! It was him or me—and I'm here."

That was sufficiently obvious. I reminded him that he had the muzzle of his revolver hard pressed against my midriff.

"It hurts," I said, "and as I am unarmed, there is no necessity for it."

He reached over and felt my pockets. Assured that I had no weapon, he took his

revolver away from me, but still kept it in his hand.

"Curse me if I know what to do with you," he said, with a puzzled air. "That detective will never talk again. Nobody knows what's happened but you. Now that I've got him, one murder more or less won't matter. I guess I'd better hand it to you, too. Dead men tell no tales."

I never before felt so moved to eloquence in my life. I could see how reasonable his point of view was. I believe that in his fix I most certainly should have "put out of the way" any involuntary spectator of the fact that I had committed murder. But I had to argue for my life.

"Don't shoot me, Frank," I said.

It sounded a bit familiar to be calling a murderer by his Christian name—that is, if murderers may be said to have Christian names—but I was shameless in my fear.

"It won't do you a bit of good to shoot me. I was just a disinterested spectator, that's all. I won't say a word—really I won't," I went on politely.

"Why, you're a newspaper guy!"

"Honest, I won't," I said, almost tearfully, as I could see by his eye he was making up his mind just where to shoot me. "Look here," said I, as a happy thought struck me, "I am, as you admit, the only witness to this thing. If you kill me, that'll be murder. Now, this other wasn't. It was a fair fight; a duel, and I can swear to it. Why, Nelson, if I were a good descriptive writer, I could make an epic out of what has happened this day. It's Homeric! It's heroic! It's the biggest thing I've ever heard of. A duel in the wilderness; a fair fight under the open sky, and—and—the best man won!"

In my desperation I was waxing poetic, but I could see that Nelson was moved. That glint in his eye was softening.

"Look here," I said, "the truth about this thing ought to be known. It's not the truth that can hurt you. Without my testimony you'll be rated as a murderer. I tell you what I'll do! Let me go, and when I get to town I'll write this story—the story of what's happened to-day. I'll glorify you; I'll tell of the Homeric battle!" (I just had to pull that Homeric thing again, because I saw he didn't understand it—and it made an impression.) "I'll call the story 'Frank Nelson, Read This!' and wherever you're known among your pals, even among your enemies, you'll be honored and respected for the brave fight you put up. You can't gain a thing on earth by killing me."

I know my conclusion was lame, but it proved effective.

"You're right," he said, and put his revolver in his pocket.

I smiled, for the first time that day. He made me promise solemnly that I would write the story and would make him out the hero. I swore that I would keep my promise, and as the hero is always the one who survives, of course Frank Nelson is the hero of the tale.

Together we walked through the brush to where the other man lay. He was on his face. His revolver was still clenched in his left hand; about his right my blood-soaked handkerchief was still bound.

The hero of my tale had nothing but contempt for the dead man. Not any too gently he turned him over on his face.

"Shall we bury him?" I asked.

"Bury nothing!" was the reply.

Together we made our way to the railroad. Nelson pointed:

"That way it's only about six miles to a town. The other way there's no station for twenty miles."

"Thanks," I said, "and good-by," and started to walk in the six-mile direction.

"Come back," he cried. "That's your way," pointing to the other direction. "I've got to get away first. You won't go back on me about that story?"

"No," I answered.

"All right, then—get! Beat it while your shoes are good!"

That is the story. I have kept my promise. I didn't get to the next town until early next morning, and then I promptly notified the sheriff, who went out with a posse and brought in the body of the slain detective. They telegraphed in all directions to look out for the murderer, but he was not caught.

There is just this to add: I was down in the Wall Street district the day that the highway robbers held up and robbed two bank-messengers of something like $25,000. That morning, from a Broadway car, I saw in a crowd that thronged the sidewalk a face that I am quite sure was that of Frank Nelson.

If, indeed, Frank Nelson, alias Chicago Red, alias Billy the Gopher, is in New York, and if he reads this story, I make this note merely to remind him that I have kept my promise.

RAILROAD BUILDING IN BRAZIL.

What You May Expect in a Construction Camp in Jungle Land.

Fish that Kill Animals, Insects that Eat Everything in Sight, Wild Indians and All Else that Make Genuine Adventure.

BY JAMES ORTON.

V. MEYERS, an American railroad man, during his three years of service in the jungles of Central Brazil and Bolivia as one of the paymasters of the Madeira - Mamore Railroad, saw some things and had some adventures with swamps, snakes, and savages that give to South American railroading something more than a picturesque side

Just a few words about the railroad in order that we may understand the why and wherefore of Mr. Meyers's experiences. The Madeira River rises in the Andes in Bolivian territory and, running in a northwesterly direction, empties in the Amazon at Manaos, the capital of the State of Amazonia, Brazil

The river is said to be nearly three thousand miles in length and the valley through which it runs is the longest in the world. About six hundred miles southeast from the Amazon, a series of rapids and falls are seen on the Madeira as far as Bolivia. Up to the point at which the falls are encountered the river is navigable by craft of four thousand tons

Heretofore, Bolivian products, rubber in particular, have reached the navigable portion of the Madeira by means of flat-bottom boats, called *batelaos*, of about twenty-tons burden. These craft shot the rapids in some places or had their cargoes portaged by long and tedious "carries" in others. The trip often resulted in loss of both life and cargo. Going and coming took over four months.

The new railroad starts in Brazil at Porto Velho, just north of the rapids, runs about two hundred and seventy miles around them and ends at Guajara-merin in Bolivia. It covers the total distance in one day as against two months with the *batelaos* At Porto Velho, the freight is transferred to ocean steamers

The Madeira-Mamore was built by a firm of American contractors for the Brazilian government. All the officers and the skilled labor employed by the construction company were American. The road has been nearly four years in building. The climate is trying to newcomers and the physical obstacles met and overcome were many and difficult; but the enterprise went through without a hitch.

Forty years ago, an attempt was made by

Americans to construct the road, but it was abandoned because the financial backing failed at a critical juncture and because nearly fifty per cent of the white laborers perished.

Porto Velho is about ten degrees south of the equator. The line of the road runs through a dense jungle that swarms with aborigines, wild animals, gorgeous birds, and various insects and reptiles.

Mr. Meyers's duties necessitated that he travel on mule-back from one camp to another, accompanied by a guide, resting for the night where night found him and relying to a great extent on jungle game for grub.

"I'm going to talk but very little about the railroad itself," said Mr. Meyers, "but I'll try to tell you something about some of the surroundings and incidents that I met with in those wild parts. All that I'll say about the road is, that it is well constructed and equipped and that its financial future is assured. The rolling stock consists of eleven fifty-ton Baldwin locomotives; a number of comfortable passenger-cars and a due proportion of freight-cars.

"The right-of-way from beginning to end is a bully piece of work, ballasted with *cascalho* or cement-rock, which is found at several points along the line, and also with granite.

"The rough work of construction was done by a force of unskilled laborers—Brazilians, West Indians, Italians, and Spaniards. All the skilled labor was American. I think that one of the most remarkable features of the making of the road was the general good health of the Americans.

No Skilled Workers Got Fever.

"Brazil is said to be the home of malarial and allied fevers and other tropical diseases. Yet there were a number of white men from the North who were sent to a jungle within a few degrees of the equator, and who enjoyed excellent health during their stay in the region.

"This was due to the medical outfit of the expedition. We had a fine staff of American doctors, and the first thing that was built at Porto Velho was a well-equipped hospital. At all the camps, too, there was medical attendance and temporary hospitals. Ships coming to Porto Velho from other points were quarantined, so as to keep yellow fever away from the force. The result was that not a single man among the skilled workers was attacked by the disease.

"Newcomers were put through a course of sprouts by the doctors and were told what to do and what not to do. Every man, too, had to take so much quinin daily. It was served during meals just like pepper and salt. In the offices, too, quinin bottles were mixed up with the ink bottles and stationery. When you felt like it, you just helped yourself to as many grains as you wanted.

"Notices in Portuguese and English were posted in offices and living quarters to the effect that if any man didn't take his daily dose of the medicine, he would be docked.

"Like the average tenderfoot, however, I reckoned that I knew better than the doctors, and so passed up the quinin. Before long I was on my back with an attack of malarial fever. When I pulled through I came to the conclusion that it should be quinin for mine from then on.

Battling with Climate.

"After that I never had a day's sickness during the rest of my stay in Brazil. At one time I was gulping down forty grains daily. When I left I was struggling along with fifteen grains a day. Some of the men complained of having buzzing wheels in their heads from the stuff, but I escaped any unpleasant effects.

"The climate of those parts doesn't jibe with the Northern idea of the tropics. There are hot spells similar to those in the North, but, take it all round, the temperature varies between seventy-five and eighty-eight all the year round.

"It is always cool in the evenings, and at about one o'clock in the morning the need of a blanket is invariably felt. I have known the thermometer to drop to fifty degrees in the wet season, which begins about the middle of September, and lasts about five months. If it were not for the humidity and the decaying vegetation of the jungles and swamps, I believe that Central Brazil would be as healthy as any place in the world.

"Only those who have been on the spot can understand what this railroad will mean to Bolivia and Brazil. The yearly loss of life and property under the old

plan of shooting the rapids by means of the *batelaos* was very great. The average value of the rubber cargo carried by one of these boats was about eighty thousand dollars. Not a season passed without a number of the boats being wrecked and their cargo going to the bottom.

What the Railroad Will Do.

"The wretched peons who manned them—peonage of the worst is still rampant in Bolivia—went to the bottom too. The railroad will revolutionize the rubber market. The rubber districts in Bolivia around the Rio Beni, Rio Negro, Rio Abuna and others—to say nothing of the territory of Acre ceded to Brazil by Bolivia in return for the building of the road—will all be opened up to the rubber traders as they never were before.

"Brazil has a population that flies and crawls and wriggles. I mean the insects and reptiles. Mosquitoes of many kinds and degrees of biting power are there, all anxious to taste the stranger.

"In camp and office you can manage partially to protect yourself with curtains and screens, although there is one kind, called the *pium*, that is so tiny that it will sneak through the finest mesh that was ever made. And how the little beasts do bite, to be sure!

"But in the woods! Well, there's no use in reflecting on the days and nights of torture that I spent. I've seen them so thick that when you waved your hand through the air, it felt as if you were up against a cloud of small feathers.

"I've brushed them off by the handful from my arms and legs. They seem to flourish and get fat on any dope with which you may anoint yourself. Luckily, the kind that breeds infection seems to be rare in the interior.

"Ants, too, are pretty nearly as numerous as mosquitoes. They are of all sizes, and some are black, brown, red, and drab. The black chaps are common enough in the jungles. They measure nearly two inches in length, and are always looking for a scrap. Their bite causes a burning swelling that is liable to turn into a big abscess.

"I've seen some natives terribly marked by the creatures. Whenever we came across them we would turn our mules the other way. The Indians declare that they will chase people who have angered them.

"Then there is a kind of red ant that isn't a thug like his black cousin. However, he is a clever sneak thief. The red species travel in armies, and if they get in a camp they will eat up or carry away in small fragments anything that they can get their mandibles into—food, paper, leather, or cloth. On one occasion when camped on a trail, I woke up late at night with a queer feeling about the lower part of my stomach. By the light of the moon that was streaming into the little palm hut I saw a steady stream of these ants, several feet wide, passing over me and then parading over my companion, whose shakedown was close to mine

"Just then he opened his eyes and yelled. I called to him to be quiet, for the ants weren't doing us any harm, and I didn't think it well to excite them to hostilities. So there we lay for half an hour or more, with the insects using our bodies for their right-of-way. I can't say that I was sorry when their promenade was over.

"There is a small, dark brown ant that also travels in regiments and eats anything that it comes across, even men and animals that can't get out of their way.

"I heard some ugly stories about sick and disabled Indians having their bones picked clean by these insects, and of chickens and dogs falling victims to their ravenous hunger.

"It's been my fortune to see these ants on a foraging expedition in the forests on several occasions. More than once, too, I've been in the company's offices when the alarm was given that the ants were coming. Then everybody got out of the way, business was suspended and the fun began.

"The ants are really blessings to dwellers in the tropics, for they clear a house of all other insects and reptiles, rats and mice as well.

Insects of All Varieties.

"The offices are surrounded from top to bottom with wire screens for the purpose of keeping out mosquitoes and other winged pests; nevertheless, crickets, cockroaches, mice, spiders, and centipedes manage to enter. When the ants approach they make frantic attempts to get out. You can hear them rustling and scratching and beating against the wire-work.

"In the mean time, the ants—small as

they are—have no difficulty in getting through the meshes, and then the trouble starts. In the course of half an hour or so, when the men go back to work, there is not a pest to be seen, although one may observe the wings and legs of the victims.

"The Brazilian cricket, by the way, is an infernal nuisance. He'll eat shoes and any other wearing apparel that have been worn. The only way that you can get the better of his degenerate appetite is to put your belongings into metal boxes—which you cannot do when you are on the trail.

"Once, when on a jungle trip with a companion and two or three Brazilians, we were waiting for breakfast in the hut that had been built in half an hour or so by our men

"The cook was bringing on the coffee, *manico,* and fish, when a big centipede fell from the palm-leaf thatch right into his loose shirt. Away went our breakfast, while the yelling cook clutched at the centipede, which buried his fangs in the poor chap's flesh.

"It took two of us to hold him while another pried off the many-legged creature with a carving knife. Then the wound was cleansed and dressed with permanganate of potassium, he was given whisky, placed on a cot, and late in the afternoon was all right again.

"At another time I was sleeping in a hut with a companion when he awoke me to remark that there was a big centipede in the place. I listened and could hear it crawling over some papers close by. My friend struck a light and saw a large centipede sneaking over a box covered with a newspaper that formed our table.

"The only weapon handy was a lead-pencil, which didn't hurt the crawler in the least, but hurried its escape. Next night we laid for him, however, and a swat with a club did the trick.

"'Do you know, Meyers,' said the executioner, as he removed the remains from the table, 'that centipedes always travel in pairs?'

"I said that I did not.

"'Well, they do,' he asserted, 'and we'll have to watch out for this party's mate.'

"He spoke the truth. On the night following came the familiar scratching, and centipede No. 2 came to grief.

"I don't care for centipedes. Not only do they break up your slumber, but they have a nasty habit of dropping on you from trees as you ride through a jungle

"Scorpions are not unknown on the Madeira, but I don't think they are as numerous as centipedes. I've seen 'em lots of times, cocking their cute little fanged tails over their backs impudently, as thy scuttled for shelter

"Another sociable insect is the *niguas.* It is like the jigger found in some parts of the United States. Mr. Niguas infests houses and huts, makes himself and his family comfortable by burrowing in various parts of your body, and causes you to become an aggregation of boils, unless you are careful how to dislodge him.

Killing a Coral Snake.

"In reptiles, there's nothing coming to Brazil. The *cascavel,* or rattlesnake, the *jararaca,* the *surucucu,* and the coral snake are all deadly, the last especially so. The coral snake gets its name from its color. It's a small chap, but if it gets its fangs into you—good-by, and a forest funeral!

"Once I stopped for the night at a temporary camp of the working force. It was in the wet season, and when I tumbled into my hammock, I noticed that the floor of the hut was covered with some long patches that seemed to be much damper than the rest of the floor. This is saying a good deal, for everything was soaked with the tropical rains. I asked the boss of the outfit what caused the patches.

"'Oh,' said he carelessly, 'this used to be the burying ground of boatmen who lost their lives shooting the rapids. The current generally brought the bodies hereabouts and they planted 'em here. We didn't find this out until we'd run up the old shack, and then we didn't think it worth while to shift our quarters for the sake of a bunch of dead ones. It's funny, though, that these graves always get wetter than other ground, isn't it?'

"I agreed with him and, turning over, tried to go to sleep; but having a cemetery for a bedroom was new to me and I didn't slumber very soundly. However, I finally dropped off, only to wake with a jump at the sound of a pistol fired close to my head. It was just daylight. Rising, I saw my host, gun in hand, peering at something on the floor.

"'It's a coral snake,' he said in answer

to my shout. 'I woke up just in time to see him in the act of dropping on you from the roof; then I punctured his tire. Lucky for you I did so, or you might have been added to the cemetery population.'

Seldom Bitten by Reptiles.

"It's a curious fact, however, that you rarely or never hear of people being bitten by any of the poisonous reptiles of the country, and yet the Indians go naked through the jungles. The white folk seem to take no especial precautions and I never heard of one of our force coming to grief through a snake.

"Pythons are quite common in the jungles. They run up to eighteen and twenty-four feet in length. I have a photograph of fourteen men holding the skin of one that was killed at my camp. Although I came across them pretty often during my forest journeys, I always had difficulty in distinguishing them from the foliage, so wonderfully do their mottling colors blend with the leaves and boughs.

"One of our foremen was riding with his native help through the jungle, when his mule shied. Coiled round a near-by tree-trunk, was an enormous anaconda. The American was unarmed. Dismounting and hitching his kicking animal to a convenient tree, he ordered the Brazilian to gallop back to camp and fetch a rifle. Then he turned to watch the snake.

"For some minutes the reptile remained quiet, when it began to uncoil preparatory to getting a move on. On this, the foreman threw twigs and stones at it, hoping to make it so mad that it would remain to show fight. He partly succeeded. Its eyes sparkled and it opened its mouth and protruded its tongue angrily, but continued to uncoil. Finally the man heard his *mozo* galloping back with the rifle. A happy thought came to him. He had been told by the natives that boas were attracted by bright colors.

"Untying the red silk handkerchief that he wore round his neck, he threw it in front of the snake. The uncoiling ceased. The anaconda stretched inquisitively close to the handkerchief and there it remained, waving backward and forward, until a bullet from the rifle went through its skull.

"'I could have killed it with my machete without the trouble of going for the rifle, boss,' said the Brazilian when it was all over.

"'And spoiled the skin,' replied the foreman. That was clever work with the handkerchief.

"The *mozos*—guides, or guards, as the case may be—are usually picked men who know the forests and can be relied on to stand by you in a pinch. In spite of the fact that it was generally known that I usually traveled with a good deal of money, nobody ever tried to make trouble. Maybe it was the revolver and the repeating rifle which I carried that stopped 'em from meddling. Anyhow, I was never held up, and only on one occasion did anything happen that looked like mischief.

"It was at Camp 25. With my *mozo* I reached there late and tired, and turned in at once. At about one o'clock I woke and heard the *mozo* moving about. He then left the hut. I listened for a few minutes and concluded that he had heard some suspicious sound and was investigating. Then I dropped off to sleep again.

"The *mozo* didn't show up at breakfast, so I concluded that he had tired of the job and had skipped. A little later I heard a shouting outside, and on going out to see what it was, found an excited group of men gathered around a little clump of underbrush in which lay the *mozo*—dead. He had been strangled and stabbed in the abdomen. Whether the murder was done by would-be robbers or for motives of personal revenge, I don't know.

Snakes of the Swamps.

"Brazilian reptiles don't confine themselves to land. There are various kinds that live in swamps and creeks. I've also seen them in the Madeira crossing from point to point. There is one big chap that looks the wicked and venomous enemy that he isn't, who would make you swear off bathing in Brazil if you were given to nerves. He gave me the jumps the first time I came across him, or, rather, on top of him, for our canoe struck him amidships while he was sunning himself on a bunch of floating weeds.

"Between two of our camps—32 and 33—the right-of-way ran through a long, broad, and deep swamp. I forget how many loads of soil and rock were dumped into it before the foundation for the roadbed was made, but I do know that the com-

pany at one time almost gave up the job of trying to fill up what seemed to be a bottomless pit. The corduroy foot-road that was built for temporary use over it, had a habit of disappearing overnight, with the result that we had to wade up to our armpits through stinking mud and slush when going from camp to camp.

Lizards that Taste Like Chicken.

"The swamp swarmed with insects and reptiles, including the big water snake of which I've just spoken—and how we did hate the trip! A Swamp Club was formed, the qualification for membership being, that the candidate has crossed the place twice.

"There is a snake, common in the forests, which, so I understand, is protected by the Brazilian laws. I don't know its name, but it lives on the venomous species of its kind and its pluck is equal to its appetite. It will attack its enemies, no matter how big or wicked. The natives keep these useful snakes in their huts as pets. They are rather pretty, their coloring being metallic blue and brown.

"Lizards of all sizes and colors swarm in the jungles. Some of the larger ones are eaten not only by Indians, but by white men also. The flesh tastes very much like chicken.

"Alligators are numerous in the Madeira, as, indeed, they are in all the fresh waters of the country. I won't forget my introduction to old Scaly Back, by reason of the fun it afforded me. A companion and myself concluded that we would take a chance with the fish and water snakes of the Madeira River, and have a bath. We chose a quiet bend of the river, stripped, and dived in

"My companion was a capital swimmer and struck out for midstream. I'm not very certain in the water, so I stayed close in shore.

"Suddenly something struck me sharply and heavily on the shoulder. Turning, I saw what seemed to be a log floating by. Now there was something in the appearance of that log that made me wince. I lost all interest in the Madeira and squatted for the shore like a wounded duck. Once on the bank, I saw to my astonishment that the 'log' was still near the place where I had seen it first, notwithstanding the strong current.

"'Tired of the water already?' yelled my friend. He was now some fifty yards from the bank.

"'No!' I shouted back, 'but a log hit me and the darned thing seems to be cruising around, waiting for another chance at me.'

"I pointed to it, and my pal raised himself in the water so as to get a good look at the thing, gave a wild whoop, and began to trudge toward a rock that stood above the water some distance off.

He left a wake like a motor-boat. Once on the rock, he made a megaphone of his hands:

"'It's an alligator!' he yelled. 'For Heaven's sake, do something!'

"I did. I laid on my back and howled with laughter. The humor of the situation was too much for me. There, on a splinter of rock, furiously slapping the mosquitoes that hovered about his naked body, was an officer of the construction company marooned by a hungry alligator!

"We hadn't a canoe; a pistol bullet was no use against that armored back, and we were far from camp.

"Between chortles, I threw chunks of mud at the 'log.' I waded into the water as far as I dared and wiggled my toes at him, I coaxed and threatened and expostulated, but nary a move would he make.

Time for Action.

"Meantime, my pal, clothed in mosquitoes and cuss words, was blistering on the rock. For nearly two hours that alligator stuck there as if he were anchored. Then he suddenly flopped out of sight, and I shouted the glad tidings.

"'Now's your time! Swim for it!' I cried.

"'Nix for me!' he called back. 'He's waiting under water. I know 'em!'

"Another half hour passed, and there being no further signs of the 'gator, my pal concluded that he would venture. I've seen many crack swimmers in my time, but they were only tied to a dock compared to my friend that day. He almost made the Madeira boil and foam. It was a splendid exhibition of man's mastery over the art of the fishes. The alligator, if he was still watching, probably thought that my friend was a dolphin with through express orders. When the bank was reached in safety, the swimmer was fairly winded, but he had

enough breath to make remarks about 'grinning baboons,' meaning myself.

"Every camp had a native hunter, whose duty was to add to the supplies furnished by the company. The grub was good and plenty, including fresh meat and canned vegetables; but we sometimes yearned for something different, hence the hunter.

Weird Game for the Table.

"These hunters would bring in a weird assortment of game. There was the tapir, the flesh of which is dark and tough and tastes like pork flavored with musk. The peccary, or wild pig, is fine eating. A sort of overgrown rabbit is the *agouti*—he makes a good stew. Monkey flesh is not unlike our rabbit of the North, but has a funny flavor all its own. *Capivara* and *paca* I didn't taste. The deer of the Brazilian woods—there are three species—are not very big, but are delicious roasted, stewed, in potpie, or any old way.

"I've also eaten fried anaconda cutlets. If you could only get away from the idea that you were chewing a snake, anaconda wouldn't be so bad. Its flesh is white and something like chicken.

"One of the queerest things that I ever stuck my teeth into was electric eel. These creatures are not uncommon in the marshes and jungle pools of Brazil. One of our hunters thought that he'd cool off in a shady pond he came across, so he jumped in—and, presto! promptly jumped out again. An electric eel had fired a number of volts into him. Swearing vengeance, the hunter unsheathed his machete and proceeded to go for that finned battery. Result: electric eels for dinner that night. I can't say that I'd care for a steady diet of wireless apodes. They taste half-way between fish and fowl.

"Once my *mozo* and myself lost ourselves in the jungle. We had expected to make camp in a few hours and had no grub with us. The day passed and we couldn't find our bearings. I got ravenous and so did the *mozo*. We concluded that we would have to spend the night in the open and make another try for the camp in the morning, but, in the mean time, there was the question of grub.

"I unshipped my gun and in half an hour or so managed to bag a fine *jacu*, or turkey. Then it struck me that I had no matches to kindle a fire. Well, we ate our turkey raw. It didn't taste good. It was a gory proposition, but it was food, and we forced it down.

"Geese, wild duck, and teal swarm in the marshes, and furnish fine sport and dishes. Some of the land game-birds are the *mucico*, the *jacu*, and the *mutun*, which is a kind of cassowary. The turkeys are usually fat and their flavor is excellent. Partridges, quail, and wild pigeons are abundant.

"Along the edges of the river you come across thousands of herons, storks, flamingoes, and water hens. Black and white swans are sometimes seen. Countless other birds are seen in the jungles or in the open country, but toucans, macaws, parrots, and parrakeets predominate.

"Frequently I came across a jaguar in the forest. They would stare for a moment and then slip into the nearest thicket. They are beautiful beasts. In addition to the common or mottled kind, there are three other species, black, red, and gray.

"Tapirs were numerous, and occasionally we saw or found traces of the puma and ocelot. The comical-looking ant-eater, with its long snout and furry coat, was often seen blundering down a tree where he had located one of the great cylinder-shaped nests the ants build. These nests are wonderful affairs, many feet in length, and encircle a good-sized tree-trunk. But the trees so chosen by the ants are doomed to die.

A Diet of Turtles.

"Our hunters often turned up with turtles, and bully eating they are! You can get seven kinds of meat out of one, so the Brazilians say. Turtle steaks make your mouth water; turtle stew is better still; turtle chopped fine and served with rice is heavenly; turtle eggs fried or boiled are—yum-yum!

"Brazil is the home of monkeys. The jungles swarm with them, and when you are on a journey you can hear their chatter overhead all the time. I'm no natural history sharp, so I don't know how many kinds there are to be found in the forests, but those I came across included the *gouribas*, or howling monkey, which has a head shaped almost like a pyramid and a regular beard under its chin.

"At night, and especially in the rainy season, the *gouribas* get together and give a howl concert. If there's any sound in the

world more calculated to give you the shivers and make you think of spooks than a coterie of *gouribas* tuning up, I've yet to hear of it.

"Then, there is the *coatus*, that seems to be laboring under a standing fit of melancholy. The hooded monkey has a skullcap of black and a suit of khaki, also a cry like a sick baby. The sagouin monkey is a small imp of mischief, as you'll find out if you try to make a pet of him. The marmoset, of course, you know. Nearly everybody in camp had a pet marmoset.

Fish that Kill Animals.

"Like all good Americans within reach of water, our boys fished. That is, they tried to, but they weren't very successful, for they used ordinary rods and tackle. What you need if you try your luck in the Madeira is a harpoon gun, a steam windlass, and a few dynamite cartridges. With the help of these and a mule team, you may land and get your catch to camp, otherwise the issue is doubtful.

"The natives kill the fish with bows and arrows or use long lances, because the fish are mostly too big to be taken with hook and line. Catfish weighing nearly one hundred and fifty pounds are the rule. The *pirarucu*, a red fish that is eaten all over Brazil, has been known to scale two hundred and twenty pounds. There are immense sturgeons; *surubins* that run up to six feet in length, a kind of shark, and others too numerous to mention.

"A peculiar fish is the *piranha*, or firefish, that swarms in the shallower parts of the Madeira. It is a tiny creature and travels in big shoals. If you happen to be swimming or paddling when they come along, you must break for the shore on the instant. If you don't, there's likely to be a vacancy on the staff.

"The *piranhas* go for you in a bloodthirsty manner, and you're lucky if you escape with bleeding ankles. Many wild animals and cattle are killed annually by these fish; the victims, maddened by pain, rush around in the water instead of making for the land. I had one encounter with the *piranhas*, and ever after kept my eye skinned for them when traveling by water.

"Another fishy nuisance, whose name I don't know, is about half an inch long, slim, and inquisitive. He often succeeds in getting into your ears and nostrils when you are taking a dip, and if you incautiously open your mouth in he pops.

"A member of the construction staff who had managed to get a shark-hook from somewhere hauled in a fish that was shaped like a torpedo, was about seven feet in length, had a head covered with long horns, a pair of tremendous feelers, and a baleful expression in its goggle eyes. I dreamed about that fish that night.

"Jack Leahy was one of our launch engineers. One day the propeller of his craft fouled a bunch of river-grass, so he slipped off his togs and dived down to disentangle it. A big fish promptly grabbed him by the side and proceeded to tow him out to the middle of the river.

"Jack kicked and struggled and finally freed himself. Coming to the surface, he howled for help. We got him ashore, and the doctor had to take eight stitches in his side just above the right hip-bone. No, it wasn't an alligator. Leahy said it looked more like a shark.

"There is a small fish found in some parts of the Amazon River that lives exclusively on mosquito larvæ, or wrigglers. The Brazilian government is now breeding these fish and distributing the eggs to all parts of the country.

"The Carippuna Indians live in the forests adjoining the railroad and are pretty numerous—though by no means pretty. They are stupid-faced little runts, short of stature, and every one of them—men, women and children—have enormous abdomens, due to the way in which they stuff themselves whenever they have a chance. All is grub that can be chewed, seems to be the rule of life with a Carippuna. Snake, insect, bird, beast and fish, cooked or raw, killed or found dead, are eaten with relish at all hours.

"I never knew one of those savages to pass a chance to get away with food under any circumstances.

Dealing with Indians.

"When, in the dry season, the Madeira River is receding, it leaves deep pools filled with fish. The sun quickly dries these pools and the fish are stranded. If I had occasion to use a boat on my trips and made a landing, away would skip the Indian part of my crew to hunt for the fish corpses. It wasn't exactly appetizing to see 'em returning with a bundle of odoriferous re-

mains tucked under each arm, and chewing, meanwhile, another fish.

"Near Porto Velho and around the camps, the Indians are fairly friendly. They are usually begging, or watching for a chance to steal unprotected trifles, or to barter bows and arrows, parrots, monkeys, jaguar skins or gorgeously hued feathers for cartridges. They don't seem to care for things that we were taught the savage heart yearns for, such as beads and mirrors and brass wire, but cartridges they crave all the time.

"Most of the tribes have managed to secure a rifle or two, and it is said that they are fine shots. They usually have a tribal war or two on their hands, hence the desire for cartridges. You can buy a Carippunan wife or housekeeper for fifty cartridges, she being warranted sound, kind, and industrious by her owner, who is invariably her husband or some relative. The ladies were going begging at the price quoted at many points along the river.

"The Indians knew exactly what caliber cartridges they wanted and put aside with a grunt any that didn't suit their firearms, which they never brought in sight of white folk.

"Away from the camps, the Carippunas are shy and rarely seen by the traveler. Ugly stories are told about their capturing people and turning them into potpie, but although I tried more than once to hunt these stories down, I failed.

"A few days before I left the country a rumor reached our camp that a large party of whites had been ambuscaded by the savages, that twelve were killed and some of the bodies taken away. I went over the route taken by the supposed unfortunates a few days later, and not only did I find no traces of the fight, but I couldn't verify the yarn, hard as I tried.

"The truth is, that the Indians are shy of strangers because they are afraid they will be kidnaped and made to work. This simple way of getting labor doesn't go in Brazil, but in Bolivia it is customary. The Madeira Mamore Railroad runs for some distance on the line separating the two countries. It was said—and I believe with cause—that kidnaping tactics had been employed in Brazilian territory by Bolivians whenever there was a shortage in the labor market. No wonder, then, that the Indians, not knowing that our people were law-abiding citizens of the United States, didn't gather around our advance camps.

"I came in contact with wild tribes on more than one occasion. The first time will always linger in my memory. My native guide and myself had been riding through the jungle all day without seeing a soul. We came to a little rise, on topping which we found ourselves in the center of a good-sized bunch of aborigines.

"The surprise was mutual. The Indians grabbed their business-looking bows and arrows and broke for the tall timber. We stood still, simply because it was the only thing to do. A man's imagination gets lively under such circumstances. I had a conviction that if we tried to escape we would get an assortment of six-foot arrows in our backs, and the thought made my spine creepy. So we stayed.

"Presently the Carippunas began to straggle cautiously back, and finally one or two bolder ones came up to us. Then followed the formulæ with which they always open talk with white men whom they have not met before—the uttering of several foreign words.

"'*Bravo?*' asked the leader, fidgeting with his weapons. He meant 'are you angry?' or 'are you an enemy?'

"Both of us hastened to shake our heads.

"'*Catharra?*' was the next. It meant 'are you a consumptive?'

"The Indians are deadly afraid of consumption. They seem peculiarly liable to the disease, whole tribes having been wiped out after the infection had been conveyed to them by outsiders.

"Again, we shook our heads and hammered our chests to show that our bellows were all to the good. Then the bows were unstrung, food was offered—and declined. Finally, they became quite chummy."

Don't have too many side-tracks on your brain division. Keep on the main line of concentration.

How Things Turn Out.

BY F. LEE ALLEN.

The "Ghost" of Backwater Siding Had a Hand in Making a Man of Big Bill.

THE yard switching-engine stood near the yard-office at Dalton, the escaping steam at intervals roaring from the safety-valve. The fireman lolled in his seat and idly watched the engineer, old "Sol" Windell, oil-can in hand, making the rounds of the engine.

In company with a tall, broad-shouldered man of forty, the yardmaster left the office. As the two were passing the engine and crew, the yardmaster's companion stopped and held out his hand to the engineer.

'Why, hello, Sol!" he exclaimed. "You're still batting them out, I see. Remember me, don't you?" as the engineer awkwardly grasped the proffered hand.

"Why, of course, I remember you, Bill. Suppose it's Mr. Hurtley now. But it'll be mighty hard for the boys to stop calling you 'Big Bill.'"

The tall, broad-shouldered man laughed. "Keep the 'mister' for official occasions, Sol. A nickname is harder to live down than a bad reputation," he added, turning to the yardmaster with a smile.

As the yardmaster and his companion walked away, the engineer climbed back to the cab.

"Who's your friend?" asked Charley Freemont, the new fireman. "Some build to that chap. I'd hate to get one of his wallops that had steam behind it."

"That's Big Bill Hurtley, the new super," replied the engineer, as he tested the water-gages and opened the injector.

"Big Bill Hurtley, the new super!" exclaimed the fireman. He turned and, thrusting his head and shoulders from the cab-window, inspected the disappearing bulk of the owner of the name.

"Gee! I've always wanted to see that chap," he said, as he brought his head round and faced the engineer. "You fellows have been talking about him so much. Drummed the night yard-switcher, didn't he?"

"Yes. Was night yardmaster here, too," answered the engineer. "Made a record in handling through freight and Purley took him to Carroltown as day yardmaster. The G. Y. M. resigned and he walked into that job. Then Purley took him on as assistant super. You know Purley went to Stackton as general manager two weeks ago, and Hurtley was made super the first of August."

"Some going that is. How'd he do it?" the fireman looked interested. "Thought he had the name of being a pretty tough guy."

The engineer nodded in affirmation. "About as tough as they make them, when he worked here. Had a heart as big as an elephant's though. Would drink, that's all. Been a big change in him these six years—and the ghost at Backwater Siding's what done it."

"Ghost!" exclaimed the fireman derisively. "G'wan! What're you handing me? Tell that to Sweeny," he jeered.

"You don't believe in ghosts, then," the engineer smiled. "Well, 'long as we're held up until forty-two clears the main, I'll tell you about those ghosts."

"Thought you said there was only one," demanded the fireman as he slid down from his seat and walked over to the engineer's side of the cab.

"One!" exclaimed the engineer. "If you'd been at Backwater Siding that night

and heard Burton, the English number-snatcher, stuttering about 'bloody vahns,' 'hastonishing happaritions,' and ''aunting 'owls,' you'd have said there was a dozen instead of one. You was on the night crew last week; did you notice what a dismal hole Backwater Siding was?" questioned the engineer.

"Dismal!" exclaimed the fireman. "Dismal, with a misty swamp on one side of the main and a cemetery on the other and not a house in sight? Say, that place's got it over anything I ever saw. I don't believe in any such rot as ghosts, but Backwater Siding isn't the place I'd choose to liven up my feelings at night!"

"It was about this time, six years ago," commenced the engineer. "One of those warm, sultry nights in August. The day had been an old scorcher, lots of people kicked over with the heat. We had two cars to kick on fifty-one's train that was made up at Backwater, so 'long 'bout one o'clock we started down with them."

"Gee! I'd hate to be a number-snatcher in this yard, and have to walk two miles from the yard-office to check a train," interrupted the fireman.

"They all kick," replied the engineer. "The watchman has to go down there, too. Burton was yard-clerk then, he and Rielly, the watchman, made the trip together for company's sake.

"It was from them that we got the first word of the ghosts, down to the gate shanty at Cutler Street. They were scared. Their faces looked ghastly in the moonlight. I never thought two grown men could get so frightened.

"You see, the cemetery at Backwater had come into local fame that week. They'd found a gravestone in it that the newspapers had dubbed the 'weeping gravestone.' Crowds had gone to view it. Atmospheric action on the stone, a college professor had said it was, if I remember. But did the people accept that theory? No, sir. Twenty-five per cent of the population of Dalton said the man in the grave was weeping for his sins. Another twenty-five per cent believed it. Twenty-five per cent more had never heard of it. The rest were skeptics.

"Old Rielly was one of those who believed in the gravestone. He'd filled Burton with that line of talk until he had Burton pretty nervous, even if he didn't believe. You can gamble those two stuck like poor relations when you've got money.

"When Big Bill, who was drumming the job, swung off the engine that night at the Cutler Street shanty, Burton, Rielly, and O'Connell, the gateman, were all grouped in excited confab.

"'What's the matter with you fellows?' asked Bill as he caught their excited conversation.

"''Twas the cry of a lost soul!' declared the watchman tragically.

"'Say, what are you talking about?' demanded Bill. 'Lost soul. What've you had to drink?'

"'We was a checking the bloody vahns,' said Burton, 'when of a sudden there came an 'aunting 'owl from th' cemetery. Then we see happaritions.'

"'Huh!' growled Bill. 'If this was pay-night, I'd say you fellows were stewed. "'Aunting 'owls!" "Happaritions!"'

"'Hastonishing happaritions,' corrected Burton.

"'Look!' exclaimed the watchman. 'Tis there now. To th' far end of th' siding! By th' main! Look!' He grasped Big Bill's arm.

"The fireman was standing on my side listening to the conversation. We turned as we heard Rielly's cry and looked in the direction he had indicated. At the distance we could not make out a form, just something white that shone in the bright light cast by the moon. You don't believe in ghosts, Charley — neither do I — but cold shivers ran up and down my spine, just the same. Laugh. Maybe you'd have felt the same if you'd a been there.

"Bill took one hasty glance at the ghost then sprang for the step of the engine.

"'Say, Sol!' he cried, 'we've got the main for an hour. Headpin!' he shouted to one of the brakemen; then turning to me, 'Let's see what this thing is.'

"Then, as the other brakeman jumped on the running-board, I opened her up and started toward that white shape that still stood in the center of the main. As we approached the form, Bill, who had been leaning from the fireman's window, shouted across to me:

"'It's a woman,' he said.

"Even as he spoke the figure disappeared around the end of the cars toward the cemetery.

"I slammed on the brakes and Bill swung from the steps, the other brakemen piling off behind. Following him, they climbed through the string of cars on Backwater.

"It was some little time before I see Bill, followed by the other men, coming back through the string.

"'Did you find it?' I sung out.

"'Not a sign,' replied Bill.

"Then there came a weird-sounding cry that made our nerves jump. It seemed to come from the cars on Backwater

"Bill, followed by the others, commenced to slide back the doors of the empties, and I heard Bill muttering:

"'If some fresh guy's trying to get our goat, he'll get all that's coming to him!'

"Then came the cry again, more distinct this time, and I see Bill leap into the car before which he was standing, having just slid back the door. It was some seconds before he reappeared, then he had a bundle of some kind in his arms.

"'What is it?' I shouted to him.

"'It's a kid!' he shouted back, and jumped from the car and came toward the engine, while the other men clustered around.

"He climbed into the cab and rolled back the cloth that hid the face. One of the brakemen held his lantern, and looking out of that bundle and smiling at me the cutest you can imagine was a baby about six months old, I thought, although I'd never had any of my own to make me a judge.

"'Hey, there's the spook again!' sang out my fireman. 'Crossing the track, heading for the swamp!'

"Thrusting the baby into my arms, Bill leaped from the engine and started up the track in the direction of the figure which, at that moment, was disappearing down the steep embankment that led to the swamp.

"Two of the men and the fireman followed Bill. I opened her up and came alongside the men who were slipping and sliding down the embankment toward where Bill stood on the edge of the swamp, near where the channel flowed

"Then I see Bill throw off his coat and plunge into the water. A second and his head came to the surface and he seemed to be holding something that struggled and thrashed about.

"The channel was not over ten feet deep, but the bank was a sheer drop, and if it hadn't been for the other men who stood waiting to help him, Bill would have had a tough job to make a landing.

"As it was, it required the help of all before the struggling form was pulled from the water, and Bill was some fagged when his turn came.

"As they brought the still struggling form up the steep embankment, slipping in the sandy gravel at every step, I saw that it was a woman dressed all in white.

"'She's plumb crazy,' said Bill, as they brought the woman toward the engine, two brakemen holding her arms.

"Somehow we managed to get the woman in the cab and I opened up and ran back for the gateman's shanty. From there an ambulance call was sent in.

"We lifted the woman from the engine. She had quieted down some, and we took her into the gateman's shanty. Bill had been holding the baby all the way back, and he didn't seem a bit awkward about it, neither. I see the baby, who had managed to get one hand free of his blanket, raise it to the stubby beard on Bill's cheek.

"Well, the ambulance drove up to the shanty, and the surgeon in charge, after he'd examined the woman, said we'd ought to call the police and not him. Still he said as long as he was there he'd take the woman with him and asked Bill if that was her kid

"Funny we hadn't thought of that before. Bill seemed undecided what to do, then asked if he could keep the baby until somebody claimed him.

"The ambulance surgeon took Bill's name and address and told him he'd report to the police about it and that he could look out for the kid until somebody claimed him. We all spoke of the baby as 'him' then, but we found out later it was a 'her.'

"'You fellows can guy me if you want to,' said Bill, after the ambulance had driven off with the woman. 'I'm not going to get mushy, but there was a kid like this once that I thought a pile of. My landlady'll be tickled to death to have a kid like this to look out for.' Then suddenly changing his tone, he sang out: 'Get a move on, fellows, kick those cars on the siding! The yardmaster'll have a fit when we get back!'

"Bill took the baby up to the yard-office and Burton took it over to the place where he boarded. On the way up that night from Backwater, Bill said to me, as he stood holding the baby in his arms:

"'If that kid I was speaking about hadn't died along with the mother, Sol, things would have turned out differently for me. Hope they don't come after it. I'd like to bring up something that would be sorry if anything happened to me!'

"'Why don't you get married?' I asked.

"He looked at me for a while, then he says, 'What'd have me now I wouldn't want.'"

Sol struck a match and attempted to light his pipe which had gone out during the recital of his story.

"Well, what happened after that," demanded Charley Freemont.

"Well, Charley, you see Big Bill to-day? He don't look like a boozer, does he? It was the kid that got him out of the old rut. The mother was left without a cent of money when her husband died. She was unable to get work and was sick, and what between that and the weather we'd been having, it drove her out of her head.

"We've always supposed she intended to kill both herself and the baby by standing in front of some train, but something held her back. There was no relatives near enough to bother Bill about the kid's welfare, and Bill got mighty fond of that little helpless mite. Little by little he forsook the boys down to Regan's saloon. Then, when he was made night yardmaster, he cut out the stuff still more.

"The mother was released from the hospital as cured, and Bill gave up the kid to her. We all expected that he'd go back to the old ways after that; but he didn't, and shortly after he went down to Carroltown.

"We would see him around Dalton most every Sunday. The woman had secured work and was doing pretty well—so Bill told me one day he met me on the street. Well, you see where he is now."

Sol paused, his words drowned by the roar and clatter of the passenger as it swept by on the main.

"Curious how things turn out," said Sol, as he opened the throttle in answer to the yard-conductor's signal. "Who'd have thought he'd marry the woman?" as the engine glided forward and took the switch to the main.

Then as Sol opened his throttle wide, the exhaust beating a quick tattoo, he leaned over toward the fireman who had resumed his seat.

"Well, Charley, I've told you I don't believe in ghosts, but I certainly do believe in those like the 'ghost' of Backwater Siding, what made a man of Big Bill."

REV. GEORGE STUART'S PRAYER.

AT an annual meeting of railroad men some time ago, Rev. George Stuart, a favorite preacher among the boys of the South, was asked to open the meeting with prayer. We give below the prayer in full just as it fell from his lips:

"O Lord, we meet as a body of railroad men, with our wives and daughters, to consult for our interest. We are reminded that life itself is a train and the road to Heaven a railroad; God's truth the trains; God's love the fire, and His promise the signal light. O Lord, we recognize Thee as the General Manager of our road, the Superintendent of our train, and our Chief Despatcher. Thou didst survey the right-of-way and Thy Son purchased it with His blood. Thou didst lay the track and ballast the road; Thou hast furnished the rolling-stock, and art the owner and controller of it all. We look to Thee for all our orders and Thou must sign the checks for our daily bread. Be merciful in handling our human mistakes and blunders, and do not discharge Thy unworthy servants

"We are grateful for the Bible, Thy book of rules and instructions; be merciful in our examination, and look with charity upon our failures. Thy promises and warnings are our headlights and hand-lanterns; help us to so use them as to save our train from wreck. Deliver us from broken rails, blind switches, false signals, and mistaken orders. Be with us on every high bridge of responsibility, on every sharp curve of emergency, and every weak trestle of danger. In every dark tunnel of trouble let the light of Thy promises shine bright. Grant us passes for our wives and children and let them go with us. When the storms of temptation and trial come, save us from the fatal slide and washout that have wrecked so many trains on the road of life. Let our way—kept secure by Thy guardian care—always show the steel rail and rock ballast and be solid and firm and free from obstruction. Deliver us from the snares of our enemy. May the headlight of Thy truth shine bright on a thrown switch, false signal, or fatal obstruction placed for the wreckage of our train. May our emergency-brake, our strong will, save us.

"As we make our last run, headed homeward, if it be Thy will, order our train on time. Let every semaphore block along the line show the white signal. Let the light of Thy promises burn bright through the last dark tunnel of death; and as we run through it into the grand Central Station of the skies, may we have the approving smile of the General Manager and Superintendent; sign with joy the pay-roll, receive our wages, and have an eternal lay-off with God and the angels and our loved ones at home, and we will praise Thee forever. Amen."

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 49.—Mike, Ike, Bob, and Thomas, the Would-Be Millionaires of Hoploosa, Try to Lure the Fickle Goddess with the Patient Pide.

GOOD people, we are up against a problem of science. Why does a railroad man carry the hope along with him all the years, even through the decades of his service, that some day he will own a chicken ranch?

Why the hope? Why chickens?

There is every kind of ranch and farm and garden and patch from skunks and rattlesnakes to ostriches and onions, but a railroad man is faithful to the chicken.

There may be ten thousand other articles grown and marketed from the soil, but your real railroader, from the engineer pulling eight parlors and the observation-car down to Jim O'Brien's extra man on section 27, will think of liberty and independence from labor and of financial gain in terms of "so many chickens—so many eggs."

Or his mental vagary may have this side-trip:

"If a squab served to an after-theater New Yorker lists one-fifty or two, what income would a man have who, with ease and regularity, could pack two pails of them every P.M.?

"Money trust, take notice! Common, preferred, convertible debentures, first-mortgage bonds!

"Good morning, Comrade Morgan. Off for Europe? Don't forget to see what the Duke de Feathers will ask us for Rembrandt's 'The Chicken.'"

Pardon these altitudinal financial flights. The word "chicken" is cocain to the fancy of a railroad man. Our imagination, with a mighty cackle and flutter, flew the coop.

Back again calmly and composedly, let us repeat, "Why chicken ranch?"

Why doesn't a railroader say: "If one hill produces ten spuds, one hundred hills in one row, and one hundred rows in one patch, you will have one hundred thousand spuds."

At one-half cent per spud (quotation from Mayor Samuel Lewis Shank's raiser-to-user, rouse-mit-'em, middlemen market), we have the nifty income of five hundred dollars from one small patch.

It's chickens.

Why doesn't he direct his pencil to parsley, peppermint, pennyroyal, pineapples, or pumpkins?

Always chickens.

A railroader will take a piece of clip, whereupon a flush comes to his cheek and fever to his eye, and he will show you how a hundred hens, properly outfitted, encouraged, and nourished, will pay off the national debt and enough left for old-age pensions.

He does not enthuse over spuds and other truck. The chicken ranch is the Monte Carlo, the real Eldorado.

Why is it?

A great many qualities and impulses, bents and predilections of the human mind

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have been located and tagged as echoes of a primitive condition. For a million years or more the only building sites man had were in the limbs of trees and the sides of cliffs. The only deadly animal that found him in these elevated flats and bungalows was the snake.

So he developed, and we still retain the sickening sensation of falling and the recoil from a serpent. I have it direct from Darwin, Haeckel, Lubbock, and other naturalists that in every man there are muscles, sense-organs, nerves, bones, and rudimentary structures, homologous to a lower and bygone order and to different conditions. Let us put it up to science.

What is the origin of that impulse in every railroader to raise chickens?

Being no slouch of a scientist myself, I have run it down. We get the chicken taint as we did the other sensations we named You see, in that far-away time the birds came to sing and nest on our twig pergolas. We nailed 'em. Sure we did.

Our ladies wanted their feathers for ornaments—they do to this day. We found the flesh good for food—we still demand white meat and giblets. We developed the bird instinct, *i. e.*, the chicken. Hence the chicken ranch.

Am I not right, Plato?

I am. Thank you.

Having handled this scientific hypothesis so niftily, I will now recall that last month I narrated how Bob, the freight-house clerk, by a fitful gust of fortune—a puff and a piff that will never blow again—came unexpectedly in possession of a sum of money, whereupon the man who owns the bank called him "Robert." And wherein, further, he was at once sought out by the more luckless and impecunious for the "velvet touch," until his bounty was endangered, and whereupon he turned and fled from noble generosity and bought a chicken ranch.

The "Old Man" praised his judgment.

Ike, Mike, and Thomas approved with wholesale interest and enthusiasm, offering themselves freely as an advisory committee of the whole or individually as partners in the enterprise so far as the matter of brains was concerned, and no additional cash was required.

Bob's ranch was a five-acre tract close to town, and on which there was a shed and a shack.

There is a secret glory in the possession of property. There is within every man a certain exultation and triumph, a certain glut and gratification in the ownership of land.

Bob was less restrained and more self-reliant. For the time he felt aloof and apart from the hungry mob that possesses this mundane sphere, and is tearing and rending in mutual slaughter to live from the crumbs that fall. He had that satisfaction and complacency that, whate'er befell him in the railroad office, there was the chicken ranch. There were the five acres!

He was buttressed against misfortune! He was fortified against adversity! He was an immune to hard necessity! Any time—get the comforting thought of that! Any time—get the feel of all-wool assurance of that! Any time—make full note of the scope and significance of that! Any time! Any old time! To-day! To-morrow! Next week or next year! At any old time he could rear up and snort defiance, scorn 'em, defy 'em, challenge 'em, and walk out on the chicken ranch unshackled and untrammeled to wrestle his living from his farm!

Bob went out, cast his eyes down, across, and back, fixing in his mind the diameter, the perimeter, and the full substance of the five acres as he indulged in these Patrick Henry reflections

Ike was with him. Ike, the only other unmarried clerk. Ike was made first assistant secretary of agriculture. Bob picked him for the place. He was to sweat so much on the ranch for a season, and in the end the accumulated surplus was to be divided 'alf and 'alf.

It was quite late in the year by this time, and a conference between the two led to the conclusion that active operations on the ranch should go over until spring.

This shows the wisdom of the two clerks, as the five acres lie on latitude forty, and midwinter doings along this imaginary line when the sun is at its winter solstice do not promise much in agricultural returns besides expense.

Nothing will grow in the winter, it is true. They reasoned that out themselves. Many clerks would have written to the Secretary of Agriculture or to the State University to get this information. Not Bob and Ike. They decided to proceed on their joint powers of their own knowledge and observation.

They talked it over and thought it out.

They could not buy scientific information. They conceived the original plan of learning from others who had made chickens and small trucking profitable. They would copy from others who had encountered similar conditions.

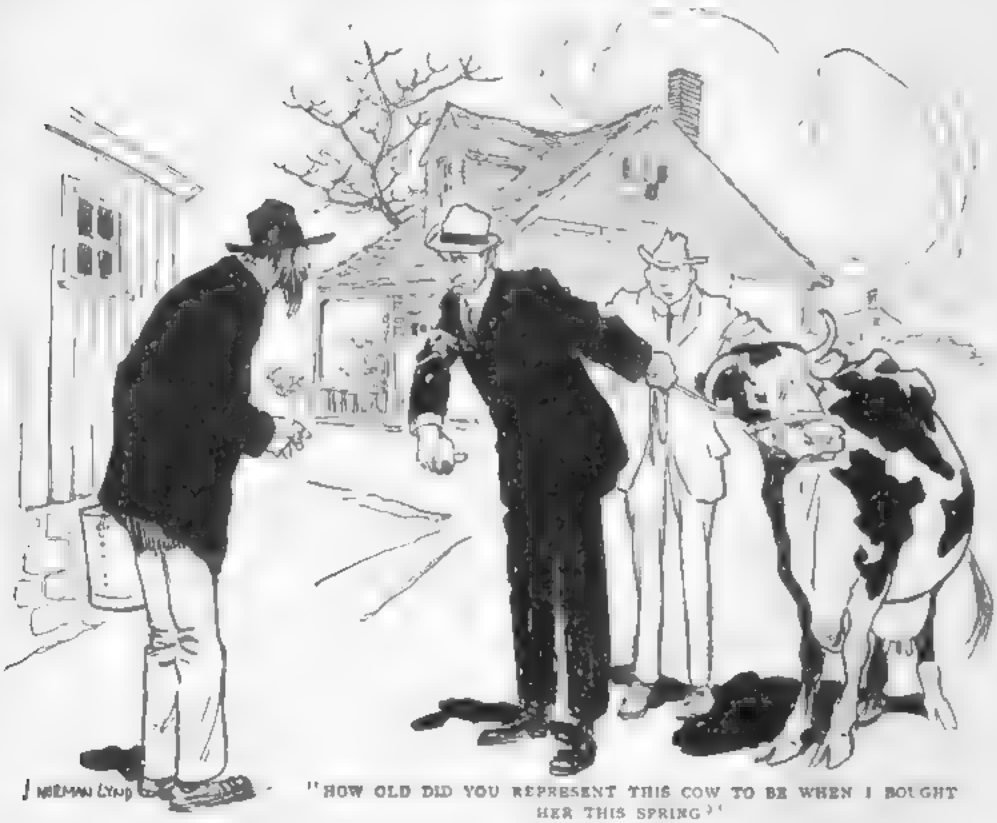
People like to be copied. They love to advise and recommend, and nothing pleases so much as to have some one come for either.

There is nothing hidden in agriculture. Every tiller of the soil will tell you how he turns the trick, even to following you around, holding you by the lapel while he reveals, discloses, and illustrates down to the last detail. No farmer has any trade-marks. The only "patent applied for" in his business is on his farm machinery.

Their lively curiosity and wide-awake interest gathered information during the dull, dark days until each was overloaded ten per cent above his stenciled capacity, at which tonnage no more could be taken on.

"THAT'S SURE AS YOU'RE BORN, LITTLE ONE!"

They debated some on which angle of the chicken business to take. One was to raise chickens merely for the eggs for market with the by-product of fries, broils, stews, and roasts. The other was to become a fancier and raise only selected stock of high-scoring birds, selling the eggs to other breeders for one to ten dollars per setting, with now and then a cockerel or a hen for



"HOW OLD DID YOU REPRESENT THIS COW TO BE WHEN I BOUGHT HER THIS SPRING?"

the snug sum of twenty-five, fifty, or one hundred per chirper.

Either way was just the same as being one of Andrew Carnegie's little steel children.

By consulting others who had had experience with chickens, the boys found that the best breed—the very best—in fact, the only breed for any and all purposes, was the Plymouth Rock, the Buff Wyandotte, the White Leghorns, the Rhode Island Reds, Orpingtons, Hamburgs, Brahmas, Cochins, and Minorcas.

After thus having obtained a clear and definite decision of the particular strain for best results, a somewhat exhaustive study was made of the character, habits, instincts, tendencies, predilections, and inclinations of chickens, physically, morally, and spiritually, until they had such a mass of qualifying and controverting information all the way from the wherefore of the stripe on the feather to the why of the "pip," with the final result that all was fog and feathers, and they could not tell the challenge of chanticleer from the watch-dog's honest bark.

But with all this Bob and Ike were happy and hopeful. They eagerly counted the passing of the winter days, and watched impatiently for the first robin.

They made their plans. They had the intense enthusiasm over the details that come in the affairs and enterprises of a man only once or twice in a lifetime.

With their own hands they repaired the old shack, making two rooms suitable enough for summer habitation. One answered for commissary, the other for sleeping and living.

Every minute of their time when not employed in the office they expected to put in on the five acres

There are many wise and wordy philosophers these days, supplying heavy-type sermonettes for the Sunday papers on how to succeed by the old rule of diligence and hard work. Bob and Ike had childlike faith. They believed that old saw, "Early to bed and early up, and soon you'll drink from a golden cup," or something to that effect

They figured it all out very nicely. Every morning they would arise at four o'clock and

work hard until six-thirty. Then breakfast; then to the office at seven-thirty. Back to the farm for the dinner-hour, and a glance of inspection, a few small chores; then back at six in the evening, supper, then work till nine o'clock taps.

"Back to the soil—that's the ideal life," said Bob.

"I can't understand why people flock to the cities," observed Ike, "and crowd together in tenement-houses, when so many of them could live in the country."

In the freight-office the talk between the two and the constant fever they could not conceal got on the nerves and stirred the envy of the other clerks.

They dubbed Bob "Secretary Wilson" in honor of the governmental head of agriculture. On Ike they fastened the name "Friday," because he was Bob's faithful servant.

Bob and Ike took these aspersions good-naturedly. They knew in the end the others would all bow before them. They would have money.

Where there is money there can be neither debasement nor ridicule.

The boys did not get fairly started until May. In the mean time they were erecting wire fences, chicken-houses, repairing the shed, and making the two rooms ready for themselves. They adorned the walls with railroad maps and folders and flashy railroad calendars announcing the flight of time, backward and forward, comin' and goin', with all the holidays in red numbers.

On the instalment plan, they purchased a small gas-stove, crockery and chinaware, pails and tinware, a table, a stand, and a mattress bed.

All available cash was invested in one cow, one pig, and a bunch of chickens.

The cow was led into the shed, and politely invited to make herself at home. She was a beautiful creature, with a dainty ermine hide and black spots standing out in sharp contrast, like the maps of Australia, New Zealand, and Borneo in our old geography.

Her general air of hauteur suggested an aristocratic pedigree. At first she mooed plaintively, then bawled out in protest over the degradation of her surroundings. Every half-hour during the first night she turned in the tocsin for lost souls. Every thirty minutes by the tick of the clock she hurled a selection of raucous trombone notes into the adjacent county. Every blast brought the boys up, for intensive farming is face to face and breath to breath.

"Curses on her!" groaned Ike. "Will she always keep this up? Haven't you anything we can give her?"

"Lie down and go to sleep," growled Bob. "She'll be all right in a day or two when she gets better acquainted with us."

"She ought to have a morphin injection," snarled Ike. "I've got a package of headache powders, about six shots in all—wonder if they'd ease her off a little if she'd take all of 'em at one sitting?"

"Go to sleep," protested Bob.

"That's fine advice, I must say, with all this grand opera under the window. Hark to that, now! The overture! The grand *entrée!* That burst of reed and wind and drum! Vogner's 'Die Götterdämmerung!' Anyway, them's my sentiments. Do you suppose I will lie idly by and allow any one to suffer as I do, for instance, without doing all I can to help?"

Ike crawled out and emptied the powders in a pint of bran, and stood by while Pide licked it up to the last flake. She mooed her thanks and sniffed for more.

Ike crawled back. Soon he was dreaming that he was dangling his legs over the crater of Mount Pelee, when the whole top blew off, and all that saved him was a lucky clutch in Bob's hair—which raised a yelp from that quarter, but which was entirely superfluous and unnecessary, as Pide was vocalizing at that particular moment

"She takes the high 'G' with ease," muttered Ike. "Wish I had a half-pound of strychnin, or some cyanid of potassium or plain lyddite. We'd have to import a new prima donna. And hark to me, we'd try out her voice before we engaged her. Better still, we'd have 'em dehorn the voice."

The answer to this outside was a fanfare of trumpets.

"Poor thing," said Bob sympathetically, "she's depressed. It's the effects of that dope of yours. Headache powders always depress the nerves. I'll agree. She is certainly the saddest cow this side of the stockyards, Chicago, United States of America. Can't we take her back or lead her on? Is there any law that makes us give her a happy home? Can't we get a goat? Will she get over it, or is every night on the farm to be like this?"

"It's all you, Ike," said Bob. "You're a nervous wreck. You are breaking down

from overwork and confinement in the freight-office. Six months on the ranch will bring you out of this nervous tension and irritability. For frazzled nerves there is nothing like the— By George! there is some exhaust to that animal, if any one should ask. She played the lower register that time. Oh, well, it won't be long till morning."

"When does that alarm-clock perform?"

"Four o'clock."

"Can't we commute the sentence to six-thirty?"

"Not on your life! You can't run a farm on any six-thirty schedule. Don't you know the book of rules? Question: What is a farm? Answer: Four A.M."

Ike turned his face to the wall and groaned. Soon he was in a troubled sleep, wherein, this time, he turned into an ancient Egyptian and was worshiping Apis, the Sacred Bull, when Pide, the lineal descendant, brought him away from the pyramids and restored him, open-eyed, on his husk mattress, glaring into the darkness.

"Bob! Bob!"

"Eh? Huh? Wh—what? Still awake, Ike? Why don't you go to sleep?"

"I can't, Bob; I'm worried about Pide. Do you think she could have swallowed a piccolo, an oboe, a saxophone, the tuba, the B-flat, or the whole brass outfit? What did you say she was, Holstein or calliope? Is it gas on her 'tummy' that makes her blow off that way? What is her working pressure? If she's sad, why don't she keep it to herself?"

There were further absurdities. Sleep itself was an absurdity; then the alarm-clock, like a slow-witted hearer who finally sees the joke, and makes up in excess and demonstration what was lacking in promptness, broke in with a hilarious uproar.

It was early morn in the country.

Here is where we need the words of a poet or the brush of an artist. Morning in the country—and in May! The first peep of dawn—the woodland hills emerging from the mists of night—the rose tint of light clouds—the voices of gladness and welcome carroling from the throats of a thousand feathered songsters in the trees—the balm of the morning air—the dew—

All right, Pide, go to it if you think you can bellow out these beautiful sentiments better than I can. Break in and bawl out, you coarse, ill-mannered creature! Done, now? Very well, I will resume.

The do. That does not look just right. How is it; now—"dew" or "do"? Now I have it straight. With the word artist it is "dew." With Bob and Ike it was "do." That is the only drawback to sentiment and scenery on the farm. As a dreamer of dreams and a spinner of words, we are shipwrecked in the very ecstasy of sentiment and rapture of emotion over a summer morn on the word "dew." Grounded on the hidden rock "do—Do—*D-o*."

Bob leaped out, threw a twisted suspender over his shoulder, swept the horizon with a practical eye to note if the signs were for more rain.

As for Ike, he rolled over and slept—a heavy, satisfactory sleep. The bawl of the cow, the crowing of the cocks, the chirping of the birds, and all the voices of the country failed to disturb him when the moment arrived that he should get out.

It is human perversity. Everything had disturbed Ike until the alarm-clock went off, whereas the thought that he must now crawl out was the same as so much opium, ether, or chloroform.

But Bob was not running a rest-cure on the ranch. After two calls and a fair warning, he forcefully separated Ike from the mattress. It was now four-thirty.

There is no set program for labor on a chicken ranch, a fruit farm, or a truck patch. There are always many things to do, and the weather is such a factor in the work that all hands take a new start every morning.

Ike, with hammer, saw, and nails, proceeded with repairs to the fences and the building of happy little homes for the now-and-then seclusion of the industrious hens.

Bob, swinging the milk-pail over his shoulder, went blithely to the task of milking Pide.

Milking a cow is a fine art, like picking the mandolin, playing the piano, or manipulating a typewriter. The operation requires a nimbleness of fingering and a fine adjustment of pressure. Bob had the idea in a general way, but he should have taken an electric vacuum apparatus as a mechanical auxiliary.

In railroading there is always taken into consideration the human equation. In extracting the lacteal supply from the original fount there must, in the same way, be considered the cow equation. She must be at peace with her surroundings, and must be amiably disposed.

Pide, with female intuitiveness, evidently looked on Bob with misgivings and dislike from the first moment.

Bob said "So, Pide," and "Whoa, Emma," at first softly and soothingly, then alternated with a furious blank blankety blank! For one hour he Marathoned, hurdled, vaulted, wrestled, hurled the discus, and performed all the listed and unlisted feats in the contest, then crawled up, hot and disheveled, to the kitchen with about one pint of real pabulum.

"She wouldn't let down," he gasped feebly.

"Last night she wouldn't let up," rejoined Ike facetiously

"What will we do?" asked Bob.

"Maybe you can get something out of 'Bullinger,' the 'Standard Book of Rules,' or the 'Official Guide' that will throw some light. Have you examined I. C. C. 1313, supplements thereto and reissues thereof? What says the 'Code of Signals'? Then there is the 'Manual of Instructions to Freight and Ticket Agents.' What does it say about milking a cow? Why don't you write the society editor of the Sunday *Whoop?*"

"'S'nough from you," said Bob, raising a silencing hand. "I wasn't asking you for any expert advice. But, all the same, this cow business is a serious proposition. She cost seventy-five dollars, and she has got to be milked."

"Don't look at me. I'm no first aid to the helpless. My specialty is chickens," replied Ike, dismissing the problem. "Do you know it is after six o'clock? We are due in the office at seven-thirty, and it's quite a few steps over there. Last call for the dining-car!"

With this, bacon was sliced, four eggs were grilled in the by product, and from twelve to twenty batter-cakes were turned

THERE SEEMED TO BE NO OTHER EXPLANATION FOR THE DISAPPEARANCE THAN THAT THE ANIMAL HAD EVAPORATED.

out, seared black in spots and on edges, and heavier than the ballast of a dreadnought, for the baking powder was overlooked. The coffee was stout and overboiled, but the pint of milk partly equalized these defects.

Then Bob, in the weighty responsibility of invested capital, thought his way out of the difficulty.

The ranchers had a neighbor. A little old man who worked all his days on one acre, in mute submission and servitude, under the direction of a women who was big and hefty of the species that "is deadlier than the male."

"Lor' me!" exclaimed the female oracle, "she ain't to home with you! Cows hev feelin's same as human bein's. It's homesick she are. Maybe she ain't never been ust to men around."

"Well, now," explained Bob, "suppose you milk her for a month or so, and we'll divide the milk until she gets acquainted. You keep half for your trouble."

"I'll tame her!" exclaimed the modern Omphale.

Evidently she could—and she did. She was a fierce, masterly woman born to rule and subjugate. She took Pide over as her personal property, and in the conditions there were no mortgages, liens, let, or hindrances. She divided the milk on her own terms, apportioning to the boys in high-handed authority what she thought they should have—and no questions asked.

Mrs. Meddle was a busy bee. At once she enlarged the field of her usefulness. She looked about the five-acre patch, including the two young freight-house clerks, who were putting in ten hours a day for the railroad and the balance of their hours in agriculture, and she was moved to take complete possession.

She did not do this by plea or argument She automatically assumed her place by the somewhat indefinite but world-wide law of superior personality. Bob and Ike found themselves in the same class as the wrinkled and crushed old man who was alone in the acre lot weeding the cabbage and onions. They took orders and obeyed injunctions of the primitive queen. They degenerated into unconscious vassalage. They became tillers and grubbers. Hark!—the Angelus!

It does not matter particularly what position any of us occupy in life, or what line of human activity we are pursuing, whether we are learned or ignorant, philosopher or "boob," we are likely to be imposed upon and dictated to by some assumption of authority insinuating itself into our preserves. Certain natures must boss. There can be no boss without bossees. We who hesitate from innate passiveness, or from the uncertainties of our surroundings, find ourselves insensibly yielding tribute and wearing the yoke

Mrs. Meddle took decisive grounds on the chicken proposition. Bob was forced to send for egg settings at five dollars per He cut out a summer suit to do this, but the ranch must have quality stock. And in this transaction Mrs. Meddle showed further resourcefulness. She coolly appropriated the imported eggs to her own hens and placed straight barn-yard stock eggs for Bob's settings.

Bob could not differentiate—to use a railroad term. Like Burns's "A man's a man for a' that," to Bob's "An egg was an egg for a' that."

The lady overseer knew he would never know. Then she compelled him to lug home grits and shell and grain provender and charcoal and disinfectants, and cures for roup and gap and cholera and lice dust until he lost his bearings and didn't know any longer what he was trying to do.

Mrs. Meddle persevered. She had her tractable husband take charge of Bob's tomato and potato patches.

Bob wanted to protest, but Ike refused to be a party to it. Ike found that he could now cut out the 4 A.M. feature of the enterprise, and he rather liked tyranny of this sort.

"Who owns this place?" yelled Bob at the woman, one day.

"Lor', it don't make eny difference who owns it," came the ready and decisive response. "A poor, puny clerk out of a office can't run it. That's sure as you're born, little one! Ownin' and runnin' is two different things. Ain't they, now? You gotta work when you hev a cow, chickens, and truck. I've always wanted more for the old man, and this is my chanct. That's what I ses to him, and he ses, ses he, 'You're right.'"

"Ain't I got no say? Don't I own it?" yelled Bob.

"Nobody says you don't own it," retorted the pagan queen, "but you can't be around—and you don't know—and you ast me to help; and when I take a job on request and invite, I don't stand around and ask if I can do this or that. I sail in in

my own way. That's the way I feel about it."

She stood with her hands on her hips and implanted—like a Colossus—in contempt of all legal rights and challenging any puny interference.

"She's right, Bob!" exclaimed Ike with more enthusiasm than was warranted. He had found conditions on the ranch as a serf greatly mitigated by her control and good milker. I bought her of a pious man, and she's Holstein. She's only four years old"

"Maybe you're fooled on her age."

"I wonder if there's any way to tell?"

"Bet your life there is," said Ike, with sudden inspiration. "By her teeth."

"Teeth?"

"Sure! Don't you know how they examine a horse's teeth in a horse-trade? If

CROWNED WITH TINWARE LIKE A PAGAN QUEEN.

the old man's help. "Let her run it a season or two. We'll learn something, and we'll make more in the long run."

"How does it come," asked Bob, yielding the main position in a sullen protest in another direction, "why is it we are only getting about a quart of milk per day as our share?"

"You're getting all that's comin' to you. If that cow of your'n's a poor milker, who's to blame? Huh? Who's to blame, now? You that bought her or me that has to milk her? Huh?"

"She's putting it over you, Bob," said Ike with alacrity. "Come on, it's seven o'clock. Let's hike for the depot"

"Do you know, Ike," said Bob, "I'm puzzled about that cow. She should be a

they are worn off above, the horse is eight years old or more. If Pide's only four, her teeth shouldn't be worn off at all. Easiest thing in the world to tell. Come on"

They gathered some salt and crusts and went out to make an examination. It was no difficult undertaking to get a look into Pide's upper jaw for incisors, canines, and pre-molars. One good look and Ike uttered an exclamation of astonishment.

"Heigh-ho, Bob, you're swindled! She hasn't a tooth in her upper jaw between the molars! They are all gone! Worn completely away! She's fifty years old if she's a minute! Take a look."

It took a little reconnoitering, but Bob confirmed by actual observation this gloomy conclusion.

"Back she goes," hissed Bob, grinding a full set of real teeth in determination. "Back she goes this very minute! No farmer can put anything over me like this! I'll show the swindler I'm not such an easy mark."

They adjusted a halter about Pide's neck and led her away. She went as mildly and as meekly as the infirmities of her great age would permit.

To the kindly, honest-faced old farmer who greeted them Bob hurled this question hot from the crucible of his boiling emotions:

"How old did you represent this cow to be when I bought her this spring?"

"Four years," replied the farmer, in no way ruffled.

"Take a look in her mouth!" demanded Ike, bursting with reserve knowledge.

"Why?" asked the farmer.

"Look at her teeth."

The farmer proffered a nubbin. Pide reached for it, finally got it, crunched it vigorously enough, and extended her nose with friendly whiffs for another. In the mean time the farmer inspected her mouth carefully.

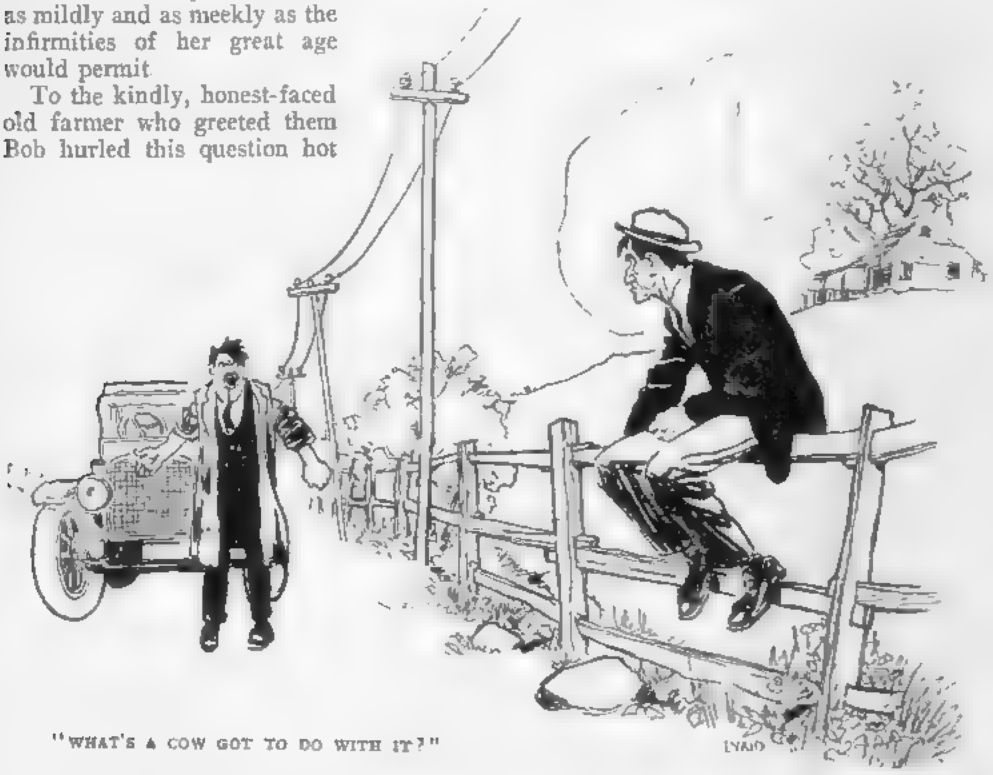
"Well?" said he.

"Can't you see?" exclaimed Ike hotly. "All her upper teeth in front are worn away. She's fifty years old. Has to be to reach that condition."

The farmer regarded Ike without any particular emotion.

"What might your occupation be?" he asked.

"We're clerks in the railroad office, but we're running a ranch at the edge of the town."



"WHAT'S A COW GOT TO DO WITH IT?"

"You don't know much about cows, do you?"

"I can tell when one of 'em is nearer fifty than four," responded Ike, with his very best brand of irony.

"Indeed! Can you? A cow's a ruminant, a herbivorous animal. She does not have any teeth in front above. There has never been any there. There never will be any there. No cow ever had them. You should have investigated; asked some one."

"But she doesn't give any milk," protested Bob. "Only a half-gallon a day."

The farmer examined the udder.

"Who milks her?" he asked.

"A woman."

"Do you see how much or do you take the woman's word for it?"

"That's what she reports to us."

"Oh," exclaimed the farmer, with a

dubious inflection; then added: "She is a good cow. She is worth all you paid for her. Take care of her for best results. Good night."

They trailed back home down the dusty pike in the gathering darkness. The old barn-yard scenes revived memories, and Pide bawled lustily all night long from loneliness and outraged sensibilities common to any female marked up from four to fifty.

"Ike," said Bob disgustedly, "you may know something about railroad rates, but you are certainly the prize lunkhead when it comes to cows."

On the following day another incident occurred on the ranch.

The well-fed, white-spotted Poland-China pig went astray. He had thrived and given promise. Bob counted him as twenty dollars in the list of assets. There appeared to be no break in the fence and the gate was closed. There seemed to be no other explanation for the disappearance than that the animal had evaporated. Even at that it seems that a two-hundred-pound hog would have left a telltale grease-spot.

Bob got a hint, and Sunday morning he hit the trail without a stop or turn to the farm of a brother of "the Queen."

In a bunch of fourteen hogs he found his. No possibility of a doubt. No question whatever.

The boys went up to the house.

"We got a hog in the pasture with yours We came after him," explained Bob with a directness that closed all argument.

"Oh, you have, have you?" exclaimed the owner. "We'll go out and see. I got fourteen of 'em. If there's an extra one there, it may be your'n. We'll look 'em over"

They went out together and counted them. There were fourteen—exactly fourteen -no more, no less

"Guess you're mistaken," said the owner.

"Mistaken!" yelled Bob. "I ain't! I know I ain't! Don't I know my own hog? I know every spot on him! That's him, right there! I'll swear to it! And I'm going to take him back with me!"

"Not so fast, mister. People do get most all-fired mistaken sometimes, and maybe you are right now. I'll tell you something. They was a stray hog around here a few days ago; I think Bowser over at that red barn took him in. Go over and see if that one ain't the one you lost."

The ruse worked.

Bob went over, and Bowser entered a general denial of stray hogs of any and all description. Bob returned.

"Bowser hasn't it; but you have."

"You'll swear to it, will you? Couldn't be mistaken, could you?

"Yes, I'll swear to it and I can't be mistaken."

"Since you're so durned sure, why did you go over to Bowser's to look at another one? I can prove that by Bowser. Do you think you could make a judge believe you didn't have some doubts about it yourself?"

Bob saw the point and he lost the pig. He returned to the ranch outwitted.

"I'm going to milk that cow myself this evening," he growled to Ike. "That female bootlegger has gone as far as she goes. She's making off with all we got here. Here is where she changes cars."

Bob took a pail and went to it. It was a hot summer evening, and the flies were bad. Pide was restless and fighting. Bob introduced himself with some emollient words and squatted to the task. Pide moved away. Bob followed. He trailed her up and down and across, arguing and coaxing At length, he got the operation under way, then Pide, with one quick hind-hoof jab, kicked the contents of the pail over the owner

Bob let out a mighty oath. He swung the empty pail and smashed Pide on the head with all the viciousness and violence at his command. Pide's horn tore a hole through the vessel, and there it remained. Pide, crowned with tinware like a pagan queen, cavorted about the lot in panic. Bob sauntered over to the public road and sat on the fence to think it over.

Down the road he saw a man tinkering with an automobile.

After a bit the man got it started, crawled in, and came a little closer—and the machine again died. He got out again, circled about the machine a few times, looked under it, raised the hood, then cranked a number of times, but got no spark. By perseverance he got under way again; but directly in front of Bob the machine let out a wheeze and a groan, and once more expired.

A greasy, ill-tempered human crawled out and glared at Bob as if he were in some manner responsible for his plight.

"Say, I'm most infernal mad!" he shouted to Bob. "Have you got a horse?"

"No," said Bob, "but I got a cow, and I'm mad myself."

"Cow!" yelled the traveler. "What's a cow got to do with it? I want a horse to pull me out! I tell you I'm mad, most cussed mad! Blank! I'm mad clear through! That infernal machine—I can't make her go! I've been six hours coming twenty miles! I'm dirty; I'm tired; I'm fizzled out; I'm all in; I'm physically exhausted; I'm a mental wreck! In another hour I'll be a raving maniac!"

He stopped long enough to streak his sweating face with a dirty hand, then continued:

"What will you give me for this bunch of junk? Make me any kind of an offer, and I'll walk the rest of the way. She's yours just as she stands. She's a 1911 Juggernaut, and she cost me two thousand. I'm so ding-blasted, all-fired out of fix, I'll trade for anything! What you got?"

"Well, I'll tell you," said Bob, slowly crawling off the fence. "The Juggernaut is a new one on me, and she don't look like her health is the best; but, stranger, you've hit the wrong man to bluff. I've got a five-acre chicken-ranch, a cow, and a female manager. It's even up—the whole outfit for the Juggernaut. I'm glad I met you. I'm a little warm, too. I just decorated the cow with the Order of the Tin Pail. You get a ranch and a cow or you are a bluffer."

The man crawled over to the fence and surveyed the place.

"I'm an office man," said he, "and I have always wanted a chicken-ranch. Here's my hand; the Juggernaut is yours." He walked away, but called out, "I'll get the deed to-morrow. Good title, understand."

Bob got a drayman and towed the machine in

Ike let out a string of liberty whoops.

Bob sat on the cushion and grasped the steering-wheel, like a real Andrew J. D. Millionbucks.

As for the female manager, she just went on with the ranch and kept all the proceeds, instead of eighty per cent, as before.

"Lor', Lor'," she exclaimed. "It makes me laugh all over, them silly little dudes from an office trying to run a chicken-ranch and a truck-farm. I wonder what gits it into their heads?"

THE BOX-CAR BACH.

BY M. U. BATES.

Written for the "Railroad Man's Magazine."

YOU may talk about your natty jobs
And places you have been,
The outside world's gay splendor
And the things that you have seen,
The luring and the pleasure,
Of the city's glare and light,
But for mine' give me a box car
On some lone secluded pike

Oh, those starry nights in winter,
With the snow on trees and ground;
The great blue vault of heaven,
And the stillness all around;
And the diamonds all a glistening
On the frozen limbs of pine
Oh, the wond'rous, wond'rous beauty,
The things that I call *mine!*

And the white-capped mountains rising
In the distance, far and high,
And the northern lights a gleaming
In the dark-blue winter sky;
And the great abysmal silence
All unbroken, saving where
A wolf howls or a twig snaps
In the frosty winter air

It tells of the strange, weird mysteries
Of ages vast, unknown;
It lures you to its bosom
And it holds you as its own;
You feel a great peace 'round you
In this lone and silent land,
With its great primeval beauty
Unspoiled by human hand

So in baching in my box car
On this lone, secluded pike,
Keeping up a lonely vigil
Through the silent winter night,
It may be sort of lonesome—
But, old pal, you get it right—
I'd not swap this great big cleanness
For the city's glare and light

TIES THAT BIND.

Remarkable History of the Great Railroad Orders of America.

4.—BROTHERHOOD OF LOCOMOTIVE ENGINEERS.

This Progressive and Enduring Organization Was Founded on the Golden Rule and Lives Up to It Both in Letter and Spirit.

BY THADDEUS S. DAYTON.

THE Brotherhood of Locomotive Engineers is the oldest of the great railroad orders of America. In the beginning it adopted the golden rule as its fundamental principle and has stuck to it ever since. It has served as a model and example for all the other big organizations of the railway world. Its career has been one of almost unbroken prosperity.

The Brotherhood of Locomotive Engineers has been in existence, as a society, forty-eight years. It has grown steadily in numbers and importance until now it has 788 subdivisions, comprising a membership of 69,745 locomotive engineers.

It has gained its enviable position by a strict adherence to its principles:

"*Do unto others as ye would that they should do unto you, and so fulfil the law.*"

"*Sobriety, Truth, Justice, and Morality.*"

"*Vigilance, not Violence.*"

It stands aloof from all political bodies and sects and ignores all questions of creed and race. It looks only to the improvement and protection of the locomotive engineers and their families.

The need of some means of advancing the interests of locomotive engineers, to make their positions rest on the basis of merit rather than favor, and to regulate hours and pay for service was first recognized some sixty years ago. Almost a decade before the outbreak of the Civil War, the railroads of the United States began to feel the coming of the mighty impulses which in the course of the next half century were to spread them in a stupendous network all over America.

The demand for engineers was so great

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then that many inexperienced, incompetent, and intemperate men were engaged. The older and more thoughtful engineers began to discuss some means of mutual protection and methods for the improvement of their fellow craftsmen.

This resulted in the sending out of a circular asking the men on all the railroads to send delegates to a meeting or convention of locomotive engineers to be held in Baltimore, November 6, 1855.

The response to this call showed the earnestness of the men. Sixty-eight engineers were present from thirteen States. They represented forty-five railroads, and there were no great systems in those days.

The name adopted for the organization they formed was the National Protective Association of the United States. A constitution and by-laws were adopted. W. D. Robinson, who is called the Father of the Brotherhood, was the secretary of this meeting. It adjourned to meet at Columbus, Ohio, in October, 1856.

At the convention in Columbus nothing important was accomplished. The next meeting was held in New York City the following year. This was the last. The newness of the movement presented many difficulties. Then, too, the shadow of the impending Civil War was creeping over the land and people could not think of much else than the mighty questions it involved. This wholly disorganized the early effort, although a few local branches of the association struggled along for a time.

The spirit of the movement seems to have been kept alive chiefly through the efforts of W. D. Robinson, who took such a prominent part in the first meeting. He was the leading spirit in inaugurating the new movement, in 1862-1863, which culminated in a meeting of engineers in Marshall, Michigan, in April, 1863.

As a result, a call was sent out for a convention of engineers to meet in Detroit on May 5 of that year. This call was addressed to the engineers on the Michigan Central, Michigan Southern and Northern Indiana, Detroit and Milwaukee, Grand Trunk (American side), and the Detroit Branch of the Michigan Southern.

On the day appointed, twelve engineers met in the Fire Department Hall, on Jefferson Avenue, Detroit, and at the close of the fourth day, May 8, 1863, these twelve men joined hands and pledged themselves to abide by their constitution.

W. D. Robinson read the obligation. Each one of the twelve repeated it after him and gave his solemn oath for his individual fulfilment of its conditions. Division No. 1 was then organized. W. D. Robinson was chosen chief; George Q. Adams, assistant chief; Edward Harrison, secretary; and Alfred S. Keith, treasurer.

This new organization was called the Brotherhood of the Footboard. Its constitution and by-laws embodied the fundamental principles of the brotherhood as it exists to-day.

The principal thought in the minds of the organizers was that members of the brotherhood should aim to reach a high standard of ability as engineers and character as men, in keeping with the importance and responsibility of their work, and should insist by all legitimate means in securing the compensation to which they felt themselves entitled.

The constitution adopted further provided that when five divisions had been organized, a delegate from each might assemble and organize a Grand National Division. It was not long, however, before twice the necessary number of divisions had been formed. Division No. 1 thereupon issued a call for each of the ten divisions to select a delegate to meet in its room on August 18, 1863.

At this meeting the Grand National Division, Brotherhood of the Footboard, was organized. W. D. Robinson was elected grand chief engineer; Charles Steel, first grand engineer; George Q. Adams, second grand engineer; O. F. Johnson, first grand assistant engineer; Frank Wheeler, second grand assistant engineer; and E. C. Redfield, third grand assistant engineer.

Early in 1864, Division No. 12, of Fort Wayne, had a dispute with the officers of the Pittsburgh, Fort Wayne, and Chicago Railroad, which resulted disastrously to the engineers directly concerned. Observing this, the opinion grew among the other members of the brotherhood that the constitution of their organization was not strict enough, and that some divisions in order to be strong in numbers had unwisely admitted to membership any one who could run an engine and also some firemen and machinists.

This resulted in the calling of a special convention which met in Detroit, February 23, 1864, when an amendment was adopted excluding firemen and machinists,

who had been eligible under the original plan of organization.

At the second annual meeting, which was the first regular convention of the Brotherhood of the Footboard, held at Indianapolis, August 17, 1864, fifty-four divisions were represented. The constitution and by-laws were made still more conservative, and the name of the organization was changed to the Brotherhood of Locomotive Engineers.

The first grand assistant engineer was made the only salaried officer, his compensation being fixed at $125 a month. At the same convention the *Trades Review* of Philadelphia, was made the official organ of the brotherhood

Working Secretly for Organization.

In these early days the work of organizing the engineers and upbuilding the brotherhood had to be carried on quietly —even secretly—owing to the determined opposition of the railroads. The engineers of New England were not organized until after December 1, 1864, but by April, 1865, the engineers in the New England States and the Middle States had been added to the Western States represented in the organization.

By the time the next convention assembled, in Boston, in November, 1866, the brotherhood had grown tremendously. It had nearly one hundred subdivisions with nearly 6,000 members. At this convention the *Locomotive Engineers' Journal*, the official organ of the brotherhood, was established.

At this convention a fund for the benefit of the widows, orphans, and disabled members of the order was established. This was subsequently changed into the general charity fund. The Brotherhood of Locomotive Engineers was the first to institute a national beneficiary feature of this kind.

At first it was not successful. The grand division levied an assessment on all the subordinate divisions in order to create this fund, but few of the local organizations paid in their quota. At the Cincinnati convention, August, 1867, these assessments were ordered paid at once, and on December 2, 1867, $1,212.40 was turned over to the chairman of the board of trustees. This was the nucleus of a fund which had a net cash balance of $10.787.63 on March 1, 1871.

On account of the slow growth of this department of the brotherhood, repeated efforts were made to have it discontinued, but without success. At the Nashville convention, in 1870, a committee appointed to consider the disposition of the fund recommended that at the end of five years the entire accumulation for this purpose should be paid back to the subordinate divisions. The grand chief engineer opposed this most strenuously, saying that he regarded this beneficiary feature of the brotherhood as its strongest pillar.

Membership in the Mutual Life and Accident Insurance Association of the brotherhood was not compulsory in its earlier years. In 1868, it attained 2,426 members and paid claims amounting to $31,920. The average of each claim was $1,520.09 and the average cost to each member for insurance was $19.

At the Baltimore convention, October 21, 1869, by-laws were adopted providing for assessments of one dollar a member for each death, and fifty cents for each case of total disability. At the annual meeting in 1871, the president of the association reported that in the three and one-half years preceding there had been eighty-six deaths and eighty-eight assessments, aggregating $196,356.50.

The industrial depression of 1871 decreased the membership in the beneficiary department, but with the revival of trade it mounted again higher than before. In 1894, the insurance feature of the brotherhood was made compulsory for all members under fifty years of age. Then the association had 7,408 members. From that year its membership grew in proportion to the general growth of the brotherhood

Its Insurance Policies.

During the period while the insurance was voluntary, $3,122,669.61 was paid out in death and disability benefits. At the close of 1896, this total was increased to $5,771,214.61. Ten years later, December 31, 1906, the membership had grown to 49,328, with $97,779,500 insurance in force, and the total aggregate paid in death and disability claims had reached $10,323,181.60. On December 1, 1911, the association carried insurance for its members amounting to $130,305,000 and had paid out to injured brothers and

the heirs of deceased members the vast sum of $24,445,507. The members having insurance numbered 63,812. Since 1867, the insurance rate never has exceeded one and a half per cent.

The policies are for $750 and a member may carry as many as he wishes up to six, making the maximum insurance $4,500.

The largest number of policies (more than 40,000), are for $1,500. For $3,000 each, there are 17,700. Fourteen members carry policies of $3,750 each, and 179 carry $2,250 each. The number of $750 policies is 2,123, and of those for $4,500 there are 3,526. These are the figures of February 1, 1912.

There is also a weekly indemnity feature, which was established December 1, 1906. From that date to January 1, 1912, the sum of $295,506.58 was paid out on this account.

A large number of the divisions have a local weekly indemnity insurance, each having its own laws. This weekly indemnity is usually about $12.

Besides these beneficent provisions, at each convention between $35,000 and $40,000 is disbursed among the widows, orphans, and needy of the brotherhood The order also provides for the care of its indigent members who are totally disabled. This takes about $60,000 a year. The brotherhood also provides pensions for those who lose their places in defense of its principles or demands.

The Brotherhood of Locomotive Engineers was the first to see the importance and necessity of an insurance feature or beneficiary department for the upbuilding of the order. This branch of the organization is now recognized among all the great brotherhoods as being one of the prime essentials of success. It secures members and retains them

After a member has carried insurance for several years his own financial interests are closely bound up with the interests of the organization and his loyalty to it is thereby increased. From this loyalty flows greater interest in every phase of the brotherhood's work.

Furthermore, the ability of the brotherhood to bargain collectively and to secure satisfactory agreements with its employers is measured by the strength of the organization, and that strength is usually in direct proportion to the development of its insurance system

It is the beneficiary department which also gives to the brotherhood's chief officials their almost perfect control over their membership, which has made disputes so infrequent in that part of the railway labor world in which the important brotherhoods are such a powerful factor.

The judgment of the grand chief engineer who more than twoscore years ago contended, against much opposition, that the insurance department was the brotherhood's strongest pillar, has been more than justified.

Ninety Per Cent Are Members.

Ninety per cent of all the locomotive engineers in the United States, Canada, and Mexico belong to the brotherhood. It has contracts with nearly every railroad company on the North American continent, and these contracts embody rates of pay, rules and regulations governing overtime, treatment of the employees, and the prevention of unjust discharge or suspension. The law of the brotherhood provides that there shall be no violation of these contracts while they are in force.

No labor organization ever before achieved so much, because no other ever had the courage to expel members who violated a contract or had the daring to revoke the charter of an entire subdivision for the same offense. Yet that is what the Brotherhood of Locomotive Engineers does.

In 1905, for instance, it revoked the charter of the subdivision in New York City and expelled 393 members for violating their contract by participating in the strike called by another labor organization on the Subway and Elevated lines.

No other organization has been more successful. None has been more conservatively managed and has won more real victories for its members, at the same time retaining the respect and friendly consideration of the employers of those that belong to it and the confidence of the general public.

The Brotherhood of Locomotive Engineers, not being infallible, makes an unsatisfactory contract now and then, but in the eyes of its officers a bargain is a bargain, even though it turns out badly, and they fulfil its terms with the most scrupulous exactitude.

The brotherhood has had two brilliant leaders, P. M. Arthur, who was grand

chief from February, 1874, to his death in July, 1903, and Warren S. Stone, who succeeded him and who holds the leadership of the order to-day.

Success has been due not only to leadership but to the 70,000 members. They are picked men—exceptional men. No man can be an engineer who has not served a long apprenticeship as a fireman, and the firemen are picked men.

The records compiled by the brotherhood show that out of every hundred men who start out as firemen, only seventeen ever become engineers; and of these only six ever attain the highest goal of the engineer's ambition—a passenger run.

But this is merely the physical selection. The test for courage is no less severe.

"The next time you see a white-haired man on the cab of a big passenger locomotive," said Chief Stone recently, "don't wonder at all at his white hair, but make up your mind that he has the goods or he wouldn't be there. It is a case of the selection and the survival of the fittest. It takes nerve to run the fast trains these days, for you sit at your throttle, tearing across the country at the rate of more than a mile a minute, and if any one of a dozen people, down to the man who spiked the rails, has made a mistake—you ride to certain death."

When a Rule Is Broken.

No other organization is so strict in the scrutiny of the character of the men who seek membership in it, and no other watches them so closely once they become members.

Its discipline is as rigid as that of the United States army. The penalties that it enforces are severe, but none too rigorous for the exalted standard of character that the brotherhood has set and kept.

Membership in the Brotherhood of Locomotive Engineers is limited to white men over twenty-one years of age, of good moral character and temperate habits, who can read and write and who have been in actual service at least one year as locomotive engineers.

No candidate can be initiated, by the way, while there is a strike of any kind on the road on which he is employed.

No member is allowed to join any other labor organization under penalty of expulsion.

If the applicant is a member of any other labor organization except the Brotherhood of Locomotive Firemen he may be balloted for, but he cannot be initiated into the order until satisfactory evidence is given that he has withdrawn from the other organization.

Members of the Firemen's Brotherhood may be initiated, but must withdraw from the firemen's organization within one year after they become members of the brotherhood.

The character of an applicant is rigidly investigated. It must be vouched for by three members of the brotherhood before the applicant can even be voted on. If, after he becomes a member, he fails to conduct himself always as "an officer and a gentleman," as they say in the army and navy, he is expelled. That is the law of the Brotherhood of Locomotive Engineers, and it is inexorable.

If a member is not expelled, the charter of the subdivision that harbors the offender is revoked.

This expulsion is not a secret, glossed-over affair. On the contrary, the name of the member expelled is printed in the brotherhood's monthly journal, and the cause of his being dropped is clearly stated. Probably there is no other union, club, or organization in America that applies such heroic treatment to the members it considers undesirable.

Here is what the constitution and by-laws of the brotherhood have to say:

> If a member is found guilty after trial of either of the following offenses: of keeping a saloon where intoxicating liquors are sold, or of joining any secret detective organization, or of using a traveling-card for commercial purposes, or of deserting his family without good cause, or of neglecting his duty or of injuring the property of his employer or endangering the lives of persons wilfully, while under the influence of liquor or otherwise, it shall be the duty of the chief engineer to declare the offending brother duly expelled without ballot to designate the penalty

The matter does not stop with expulsion from the order. The brotherhood will not risk the lives of its members and the general public by permitting a drinking man to run an engine. When a man has been duly convicted of using intoxicating liquors and has been punished according to the laws of the order, the facts are laid before the proper authorities on the road

that employs him and his discharge is demanded.

Even if an old and experienced engineer should get drunk during his lay-over, and has the sympathy of the road he has worked for during many years, it makes no difference. Friends may go to the brotherhood and demur, and say that the man did not offend while he was on duty, but the brotherhood is not to be persuaded by entreaty or prayer. It takes the view that if a man gets drunk while off duty there is no telling when he may start on his run with a befogged brain. The brotherhood insists on the discharge of the culprit, and he can never be employed again on a railroad.

Some railroads instead of disciplining offending engineers, prefer to report the facts to the brotherhood and leave the offender to the stern justice of their fellow members.

Applying the Golden Rule.

About ten per cent of the locomotive engineers are not members of the brotherhood. The order, however, regards these men with toleration and friendship, according to their character and attainments.

It does not persecute, ostracize, or annoy men who are not members. They work on the same roads as engineers who are members and enjoy the same advantages in hours and wage scales as the brotherhood has won. If one of these non-members, of good character, has a grievance, the brotherhood will even endeavor to adjust his difficulties for him, and will take as much pains in his behalf as though the non-member were a member.

That is the real and practical application of the golden rule, and the brotherhood has lived up to it and practised it from the beginning of its existence.

The principles of the brotherhood are expressed in the preamble to its constitution and statutes that were enacted at Detroit, Michigan, August 17, 1863, and revised at Los Angeles, May, 1904. In this document it is stated that the principles of the organization shall be to combine the interests of the locomotive engineers and to elevate their social, moral, and educational standing; to guard their financial interests and promote their general welfare. Its cardinal principles are, "Sobriety, Truth, Justice, and Morality."

It affirms that the interests of the employer and the employee are coordinate, and that the aim of the organization will be the cooperation and the cultivation of amicable relations between the two.

If there are any differences that cannot be adjusted otherwise, they shall be settled by arbitration. The brotherhood guarantees the absolute fulfilment of every contract that it makes.

On its philanthropic side the laws of the brotherhood provide that at the death of a brother in good standing, the grand chief shall appoint a committee to inquire into the financial situation of his family. If this committee finds the family needing assistance, it is the duty of the subdivision to which the dead man belonged to aid them in every possible way. If there are children, they become practically the wards of the brotherhood, which gives them every protection and educates and cares for them until they are able to support themselves.

Four general funds are maintained by the brotherhood. The first is known as the current-expense fund. It is derived from the charter fees and grand dues. It provides for the general expenses, salaries, and the biennial convention expenses.

The second is the charity fund. This is supplied from a general fund that is set aside at each biennial convention for charitable purposes. There are more than 300 names on the pension roll, each drawing an average of over $25 a month

The third is the contingent, or strike fund. This amounts to more than $100,000. Under normal circumstances, this is accumulated from appropriations from the general fund, which is derived from dues, the profits on the official journal, and other sources.

Owns Its Own Building.

The brotherhood is as eminent as a business organization as it is in other ways. For example, the grand-lodge dues of the members include one dollar per year to pay for the official journal of the order. The actual cost of this publication has been reduced to forty-seven cents per member per year, leaving a profit of fifty-three cents

The brotherhood occupies its own building in Cleveland, a fire-proof structure, twelve stories high, of white glazed tile. It cost $1,250,000, and is the finest office-

building in that city. It was dedicated in 1910. Besides the offices of the brotherhood and an auditorium seating 1,500, there is enough space available for rental to yield a net return of more than $100,000 a year. This rental is devoted to the charitable work of the order.

This magnificent building is the materialization of a dream that Grand Chief Engineer Stone cherished for many years. When he was a freight engineer on the Rock Island, out in Iowa, he first thought of the brotherhood owning a building, the surplus revenues of which would be devoted to the relief of the distressed of the order. He talked with his fellow members about it. They laughed at him. He discussed it at the biennial convention. It was rejected. He advanced it again two years later, and it was again declined.

But at the next meeting, six years after he first proposed it, it was carried unanimously. It has proved even a greater success than Mr. Stone ever hoped.

When Chief Arthur fell dead in Winnipeg, in July, 1903, his assistant grand chief engineer, A. B. Youngson, was mortally ill in Cleveland. Stone had shown eminent ability and common sense as chairman of the general committee of adjustment on the Rock Island System. He had won much praise from his fellows. The advisory board of the brotherhood did not know him personally, but at this crisis they recalled what he had done and telegraphed him an offer to be grand chief engineer for the unexpired nine months of Mr. Arthur's term. He accepted and has served ever since. How successful he has been is a matter of history.

The Grand International Auxiliary to the Brotherhood of Locomotive Engineers is composed of the wives of the members of the order. It was organized in Chicago, October 16, 1887, with ten charter members in Division No. 1. Its founder was Mrs. W. A. Murdock, who is now its grand president.

The social, beneficent, and charitable possibilities of such an order were quickly recognized, and its growth from the start has been steady. At the Pittsburgh convention, in 1890, the auxiliary appointed a committee to confer with the brotherhood in convention, and to request official recognition and space in the official journal. The brotherhood granted all these requests. To-day this auxiliary has nearly 500 divisions, with more than 20,000 members, the majority of whom belong to its insurance department.

The voluntary relief association of the auxiliary was instituted in 1890. The other objects of the auxiliary are educational and social — to practise benevolence in its broadest sense. It has been instrumental in strengthening the common interest of all in the great brotherhood.

The next article in this series, the Railway Clerks, will appear in July.

WITH HIS HAND ON THE THROTTLE.

WILLIAM LARE, locomotive engineer, was sitting at the throttle. It was the fastest train regularly running into St. Louis. Lare was a trusted veteran. He was not old—only fifty-four. What a story he could tell! He could tell how he saw the familiar landscape flitting by in the same old way, when suddenly—a strange landscape opened, the like of which he had never seen before. He was traversing these unrecognized new regions, all in an instant. The familiar signals were gone—all gone. But he must go on with other signals — what were they — for his guidance?

No more a time-table and a schedule; for the fireman saw that the bowed form of the engineer did not move to slow down as he should. No usual whistle-call was sounded, that he should have blown at passing the water-tank at Griffiths. The engineer had himself heard a signal-call, such as we all must hear sooner or later. The faithful man obeyed the latest signal—obeyed it instantly, not even stopping to shut off the steam that was moving his train at sixty miles an hour. The latest order was so stern a command that the good and true man dropped all responsibility as to the people on the train; no matter, he was not to blame, for he who dies at his post is acquitted, no matter what follows.

It is a grand place to die—at work, doing the day's work, true to the duty. When other hands had halted the train in safety, they lifted Lare's body out of the greasy seat, with reverent tenderness, no doubt. They stood round him, speaking words of eulogy.

When they all turned back, each man to his task, probably no one there had any idea that the real mind, capable, a moment ago, of a great trust of the splendid train, in a complex railroad system, had been blotted out of existence. No, they all believed Lare was still a man. But where he went in space was not so clear. Wherever it was, the engineer must be in good company, for Lare was that kind of a man.—*The Evening Mail*, New York.

The Face in the Rock.

BY JIM FELLOM.

Dick Bates, Sheriff, Gets a Telephone Call to Come Over for Phil Foster, Daredevil.

LIBERTY, the county seat, slumbered in the heat of the noonday sun. Its one long street that eventually led over tedious reaches to Reno on the north and to Mojave on the south was deserted save for a mangy dog that fled spasmodically from shade to shade to escape a swarm of tormenting flies.

Scarcely a mile away behind the town the Sierra Nevadas began their sharp rise. Their jagged, wooded heights frowned down on the little pueblo, like bristling battlements, behind which the burning sun always set providentially early. High up in the head of a deep cañon a patch of perpetual snow glittered refreshingly; but, with the exception of one man, Liberty slept on, waiting as usual for the afternoon shadows.

In a little, whitewashed building he sat in his shirt-sleeves before a table littered with papers. Almost continually he looked at his watch and cursed against the passing of the day. In the intervals he would hurry out upon the porch, squint expectantly up and down the white street, and address his maledictions to the landscape.

"That's O'Donnell," he exclaimed after one of these expeditions; "when it's a hurry-up job, he's shooting dice for the drinks."

The reflection added to his ill-humor. He swung back into his chair, mopped his red face viciously, and began rolling a cigarette. The telephone-bell rang—a scattering jingle that spoke of worn-out batteries. Holding the half-made "smoke" in one hand, he grasped the receiver:

"Yes, this is Bates—sheriff, yes. Hello! All right, Mrs. Daniels, I've got him. Hello, Crater Beach! That you, Bowers?"

"Say, Bates," jerked the thin voice over the wire, "is O'Donnell started over yet?"

"No, hang it, I can't locate him! I—"

"If you don't want to lose your man, you'd better start somebody this way pretty quick. The town is against Foster, and I'm afraid—"

The sheriff fumed.

"Hire a guard! Hire a guard!" he bawled. "I'll foot the bill. We can't stop—"

"You can't do it, I tell you," interrupted Bowers; "the town's set to a man! He's scared to death. I've got him in my cabin now. I wouldn't trust him out of my sight. The old woman and me are going to put up a nasty fight if they try to take him. The rest is up to you. Where's O'Donnell? Can't you reach Happy Jack or Mitchell?"

"They're down at Indian Wells. A Mexican knifed a white man last night in a construction-camp out of Mojave. O'Donnell went to Big Pine yesterday to serve papers. Should have been back by train this morning."

"Well, whatever you do, do it now," warned the other. "I'm at the end of my rope, Bates. And don't forget it's seventy-one miles here. I'm leary they'll try the lynch stunt to-night."

Bates cursed under his breath. The sweat coursed down his tanned cheeks, and he wiped it away unconsciously.

"Say, Bowers, phone Duncan at the Lost Trail ranch to get his best saddle-horse ready and to fix up a bite for six o'clock to-night. Arrange things so we can smuggle Foster out of camp around midnight. You'll attend to this? All right, good-by."

Forgetting the unmade cigarette, he kicked the chair from under him and arose. A sud-

den snatch of papers followed, then he strode out upon the porch and stopped.

A tall girl, dressed in the cool gingham of the desert, was running toward him. She was comely and fetching. The anxiety and worry that was reflected upon her countenance added to her attractiveness. Mounting the porch with a quick step, she stopped before him.

"Why, Laura!" he said, with a mixture of surprise and pleasure in his voice. Then he looked at her closely. "What's wrong? Come inside, little girl." He opened the door.

She stood in the stuffy office, with hot cheeks and trembling lips, and surveyed him doubtingly—a world of entreaty in her eyes.

"Laura, you're— Something is wrong. Tell me. What's the matter? Can't I—"

Footsteps sounded on the porch, and an Indian blocked the doorway.

"Dick, I go home now. You no want me, eh?"

"No—oh, yes! Johnny, get out the roan horse. And say"—as the Piute started lazily away—"when O'Donnell comes tell him I went to Crater Beach after Foster. If I ain't back in three days to get busy—yes, if he don't hear from me, to get busy Tell him to phone."

The Indian was gone.

"They'll have to go some," quoth Bates half aloud as he unbuckled his belt and tossed it on the table

"Now Laura, tell me," he continued, taking her hand and looking into her eyes. A wild agony had grown there. The muteness of its appeal shocked him. Immediately he thought of insult and persecution and the daredevil instincts of the frontiersman rose to the surface.

"Tell me, little girl. Wasn't we kids together? You know I'll do anything for you."

"Dick, you'll save him, won't you?" Her tears were falling; she clutched his arm imploringly. "Say, you'll save him!"

"Save him!" echoed the man. "Save who?" Then he frowned.

"Foster—I mean Phil Foster. He's all I have — all I have to love. Oh, Dick, say you will! I heard the talk over the phone. I was at the post-office when Constable Bowers spoke to you. Mrs. Daniels told me — I listened. Oh, Dick, please, please! There he is again! Let me listen! Oh, let me listen!"

He pushed her gently but firmly aside, and picked up the receiver. But she hung close over him, and, with frightened eyes and fluttering breath, strained for an inkling of the message that came in a faint staccato — as worn out as the very desert over which it was voiced.

"Yes, Bowers—"

"I heard from Shorty Clark that Duke Matthews of the I - Ain't - Going - to - Tell Mine sent word an hour ago to Majors at Wonderland to bring up the boys — that there was going to be a big time in Crater Beach to-night. And say, Bates, I got the Frisco drummer, Bernstein, subpœnaed. He's been spreading it around that Foster shot down Winters while Winters was serving the drinks. You'll have to rush it, old man. What's the matter, anyway?"

"Keep a stiff hold on yourself, Bowers," laughed the sheriff. "Everything is moving along just right. I'm going to make the trip myself. Did you notify Duncan about the change of horses?"

"That's fixed," replied the other. "The thing is to get here. The town looks pretty bad. Half a dozen fellows are piping off the house this minute, so you see what I'm up against. Foster is a coward. He's filling up on booze. All he can say is that I've got to stick by him."

"Well, I'll be off in five minutes, Bowers. Telephone me at Keeler, Darwin, or Ballarat if you want to tell me anything important. I'll go straight through. See you about midnight —good luck."

Turning about, he encountered the girl's eyes. They were full of fearful anticipation and still wet with tears.

"I'll do what I can, Laura," he said with almost certain hardness in his tone. He pulled the .44 out of its holster and examined it critically, threw out the cylinder, and reloaded it with fresh cartridges. Next he opened a drawer and filled his belt out of a box.

Laura, standing before him, watched him mutely. She followed the dexterous movements of his fingers and remembered that his father had been a "gun man" in the early days—one of those frontier characters who boasted quickness and accuracy in the use of firearms. She recalled how he and his partner had murdered two men in the fastnesses of Death Valley over the possession of a claim. Bates was killed, his partner disappeared. The son, however, had outlived the disgrace

"I'm going to beat them to it," he said

grimly, stuffing his gun back into the holster and buckling on his belt. A sudden thought seemed to strike him. He met her gaze narrowly. "And what if I do? What if I pull through with Foster? Get him here—safe? What then?"

Again she laid her hand upon his arm.

"I —I could never repay you, Dick—never!" she quavered.

"But it wouldn't help you, sister. Don't you see? We've got the goods on him." He stopped, then went on with a short laugh: "As far as getting him here safe—that's my duty. As much as it is my duty to see that he gets all that's coming to him afterward. Well, I'm off."

Outside the roan champed his bit before the hitching-post.

"Anyway," he told her by way of parting as he slung his water-bag over the pommel and mounted, "you can gamble that him and me will be headed this way by morning; but take my advice and forget him. That's a crazy man's tip, little girl. What's more, he ain't worth you."

She watched him as he galloped down the hot, dusty street, and until a grove of cottonwood hid him from her view. Then she turned and hurried away.

Keeler, a gray huddle of roofs and walls on the east shore of Owens Lake, was still scorching beneath the sun when Bates thundered up to the town stable. His cayuse was a mess of froth and dust. Its overtaxed muscles quivered as with drooping head it staggered into the dark gangway. Bates dismounted, threw his saddle on a fresh horse, and was gone.

As he cut away to the south the shadows had begun to occupy the deeper chasms of the Sierras. Far out upon the lake a gasoline-launch plowed a foamy path over the dark blue surface. When he entered the foot-hills of the Coso Range, half an hour later, and left the valley behind, he had settled upon a desperate plan. This he rehearsed again and again, and held his horse to its breakneck speed

He knew Foster, a daredevil, a man who canvassed the chain of lonely, outlying camps, and loosed his deviltry upon them; a man who made veniremen hard to find, and against whom witnesses feared to testify.

A long list of unavenged crimes hung over his head. They were strung over the greater part of eight years. Bates criticized the inability of his predecessor, Watkins, to overcome the influence of this malefactor and bring him to justice. He reflected that it was along these very lines that his own campaign for sheriff had been conducted that terminated in the defeat of Watkins for reelection.

It occurred to him that for this very reason he must "make good." This was his first chance at Foster—Foster the ungodly, the mocker. Because it was his first try, he must make a good, clean job of it. The thought stirred him into fierce eagerness—and his flying animal plunged frantically under the savage dig of the spur.

If Bowers, the constable, could only hold off the outraged citizens of Crater Beach! He wanted a show at this undesirable, Foster. Once in his clutches, he would thwart the mob. Yes, once the heavy steels locked upon the wrists of this big, bullying desperado, there would be no escape for him. This he swore.

As he tore along over the dreary stage road he thought of Duke Matthews and Majors of Wonderland as factors in the uprising. Both good, shrewd men he acknowledged; both leaders of men and popular in the camps. He rather feared their popularity.

He entered Darwin in a broken gallop just as twilight descended over the western rim of the desert. Three hours later he was swallowing a stew of jerked beef, beans, and tortillas at Duncan's. From this point he followed a cut-off cow-trail and saved himself five miles. When he again met the uneven road it was at the mouth of a deep cañon that disappeared into the bowels of a wild range.

The moon had risen. Dead ahead and high in the sky loomed the shadowy heights of Telescope Peak. At its feet, he knew, lay Crater Beach, clutching at the slope of a tilted plateau. He urged his tired horse into greater effort.

II.

CRATER BEACH was singularly quiet. For the first time since its birth, two years before, every light was out at eight o'clock — every light except two. One of these was in a squat, rock cabin on the edge of camp; the other reflected faintly through the drawn curtains of a larger shack back from the main street.

In the former place the dead man was stretched upon a board in the center of the one room. The hard-packed floor had been

well sprinkled. Here and there a puddle held out, unable to sink into the close-grained shale. Four candles burned about the corpse. A potted geranium with a solitary red bloom stood at its head.

An old man in dirty khaki pants and hickory shirt sat comfortably on a box and sucked on a short pipe that gurgled and wheezed distressingly. He sat and eyed the motionless form and spat at regular intervals—alone.

But, if the atmosphere of this mortuary was in keeping with the sepulchral appearance of Crater Beach on this night, the activity and suspense within the other cabin were in marked contradiction.

Flat upon his back in a far corner of the long room lay a man. He was manacled—hands and feet. Most of the time he squirmed over the floor and complained. Occasionally he would lie still and listen, trembling with dread; but always he shot shameless, suspicious glances, first at one, then at the other of his companions.

He was a big man. The tan corduroys he wore gave greater size to his powerful proportions. On his face the coat of arms of the ruffian showed in a crisscross of livid scars. This was Foster

Three paces away sat Mrs. Bowers, the gritty wife of the constable, a rifle across her knees. For six hours she had occupied this position. Her face was pale and drawn, her eyes afire. She sat and guarded that great beast of a man—and listened. Frequently she would dart a look full of fearful inquiry at her husband

Bowers, a double-barreled shotgun in his hand, paced the interior. Often he paused to press his ear against the door. This he had done many times since twilight. He looked at his watch. It was now eleven o'clock. Would Bates ever come? He strode over to his wife and kissed her.

"Better lay down a little while, Tillie," he said in an undertone; "I'll look out after him."

Reluctantly she obeyed.

"Don't forget, Bowers, it's up to you," whined Foster for the fiftieth time. "You've got to protect me, and don't you forget it. I know my rights — you've got to protect me!"

The constable took a step forward threateningly, so threateningly that his wife sprang from the bed.

"If you don't cut that stuff, I'll—" The murderer shrank visibly.

"I was just telling you," he whimpered, "'cause—'cause you might forget."

"Shut your mouth, will you?" hissed the other, moving away. "I'm sick of your bellyaching! I guess I know my duty."

He reached over and turned down the lamp until the room was in gloom.

"What you going to do?" queried the prisoner suspiciously. Then he fretted. "These cussed bracelets are chawing into my wrists, Bowers. Can't you slacken 'em a bit? Well, gimme a drink, then. I guess I know my rights, too."

The constable poured out a measure of whisky in a tin cup and watched him gulp it down.

"You're all right, Bowers. You're a ding-donger, you are!"

A long silence followed — one of those dragging periods of suspense that take the grit out of any man. Mrs. Bowers, lying on the bed, kept her eyes on her husband.

The battered alarm-clock on the table ticked with demoniacal exactness. There was a loose wheel in the works, and this clattered obediently every seven ticks. The clatter irritated Bowers. He crossed over, found the timepiece in the dark, and jammed his knife into the regulator-slot. From far out in the night came the weird scream of a bird. Bowers listened for a long minute—then he approached his wife.

"Funny they haven't showed up," he whispered; "they can't be thinking of taking him around daybreak, can they?"

"You're sure Shorty Clark wasn't lying?" she breathed.

"Positive. Besides, he's looking for a little favor from me. Wonder how Bates'll work it? It's desperate business, I call it. I've heard 'em say, though, that he's chuckful of surprises when he starts, and not given to much ceremony. Recollect what Mrs. Daniels told you about his old man and his pardner killing off them two prospectors? And how old Bates died down there in the valley, and how his pardner disappeared? Well, any old timer will tell you that Cyrus Bates was the terror of early days. Only one man could handle him, and that was this same pardner. He was a go-get-'em, and had Bates buffaloed. Nobody seems to know where he went to. But that's where the sheriff, here, takes his grit from—from his old man. 'Bout time he was coming."

Mrs. Bowers threw her arms around his neck and kissed him.

"I wish it was all over, Fred," she said fondly. "Will he ever come?"

The telephone-bell rang, sonorous and startling. Foster awoke with a cry.

"Don't forget, Bowers, you've got to—" he gasped.

"Hello! That you, Bowers? This is Bates. I'm in town—afoot. My horse played out half a mile down the cañon. Can I get a couple? None in town? I hadn't figured on that. Well, how's everything looking? Oh, I'll get him out, all right. That's funny! What happened to them, I wonder? Sure you got a straight tip? I see. All right, old man; I'll hurry."

"Well, he's here," grinned the constable, and his wife breathed deep and smiled back.

Foster, screwing himself into a sitting posture, began his drunken prattle.

"Who's that?" he sulked. "Bates? Well, that don't let you off, Bowers. You've got to see me through, that's all—so's Bates. I stand on my rights! Gimme a drink!"

Heavy hammering on the door snapped him into silence, and he fell back, cringing in terror.

The stillness was changed into an uproar. A hundred bloodthirsty throats roared out a riotous demand that went echoing far back into the heart of the lonely range. Then, as suddenly as it had begun, it ceased. Some one was speaking.

Bowers, with pale face that shone ghastly in the dim light, dragged the squirming, simpering wretch across the floor and rolled him beneath the bed with his boot.

"Stay there and shut up! I'll kill you—you understand?" he gritted, and sprang to his wife's side.

She had risen and stood with ready rifle. "Deary, that's too heavy—here!" Snatching the weapon from her hand, he tore off his heavy belt and strapped it about her waist. She drew out the long-barreled "thirty-eights" with experienced hands.

"Over there, now—in the dark—crouch! Watch the windows! And, deary, hold off until you just have to shoot—you know."

With a fleeting kiss he bounded to the door, gun in hand.

"Say, Bowers," a deep voice bellowed, "open up!"

"What do you want?"

"Open the door—we want to see you."

"This is a poor time o' night to be fooling around a man's door, Matthewson. You're leading the town in this dirty work. You'd better think it over before it's too late."

A brief silence fell; then a new voice spoke:

"Say, Bowers, the people of Crater Beach want you to deliver Foster to them. We want him, Bowers, and we're going to get him."

"What for?" parried the constable.

"We want Foster. Are you going to give him up?" A howl greeted the speaker's directness.

Bowers stepped away from the door and cocked his double-barreled shotgun.

"So help me, Heaven! the man who tries to get in that door, falls in!" he yelled—and Mrs. Bowers shivered at the significance in his tones.

Following this declaration there was a halt in the parley. From beneath the bed came the murderer's broken whines of terror; from without the drone of many voices. Bowers strained his ears for a hint of the mob's designs. He stood rigid and expectant, until a movement in the rear caused him to look around

His wife was signaling excitedly and pointing. He looked toward the last window. A strip of white paper protruding over the sill caught his attention. Hurrying over, he took it from the unseen hand and held it close to the light.

"Open the window. It's Bates," he read.

A moment later the travel-stained sheriff worked himself through the small aperture into the room.

"Hello, folks!" he said, with a short, pleasant nod; "it's kinder stormy out tonight."

Bowers, having replaced the sash, joined him.

"I just gave them the straight of it," he whispered, "and they're talking it over."

"Good!" returned the other. "There's about a hundred of 'em—the whole camp, I should judge, outside of Beggar Ben. He's watching the dead man in Hutchinson's cabin. So there ain't no horses? That's bad. I've got a tough job on my hands, sure. Where is he?"

"Under the bed."

"Let's get a look at him."

They dragged Foster out unceremoniously. The sheriff contemplated him.

"Hello, Frosty! You've certainly stirred up an awful mess, haven't you?" The man began to whimper. "That's enough of that now!" Bates turned to the others with a

smile. "It's lucky you've no back door, Mrs. Bowers. It's the best way out."

Without awaiting a reply, he looked about the room. A pick in a corner caught his attention. Taking up the implement, he found a favorable spot breast high in the rear wall and began working out the rock.

"Bowers!" called the man at the door.

"String him!" whispered Bates; "tell him any old thing! Hold them off!"

"Bowers!"

"Well, what is it?"

"Let's compromise. If you let us have Foster, we'll promise he'll get a square deal in the morning—judge, jury, and all that. What do you say?"

"But how do I know you'll make good?" replied the constable. "You're asking an awful lot from an officer of the law. And you don't give him any come-back. Where's your security?"

Another consultation ensued, broken occasionally by an excitable remark that rose loud above the jargon. They were still arguing when Bates concluded his labors. Through the hole in the wall the dim moonlight streamed. He looked out cautiously and listened.

"They're busy digging up that security, Bowers. Hope you'll get it."

Slipping the manacles from Foster's ankles, he jerked the trembling wretch to his feet.

"I'm off, folks. I'm going to take a straight shoot for Duncan's. Get my horse in the morning, Bowers. If you don't hear from me by to-morrow night, phone O'Donnell and get busy. Hold that bunch off as long as you can. They won't be able to track me at night, anyhow; and I'll be at Duncan's for breakfast if I cut across country. Good-by."

Two minutes later the citizens of Crater Beach returned to the parley.

"Say, Bowers," shouted the spokesman, "we've raised a pot of three hundred dollars as security. There it goes." A number of bills and some gold were shoved under the door. "How's that?" The constable gathered the currency.

"It's pretty short money, that's all I got to say. You can come in and get it back. I'm going to let you see that you've been wasting time. Foster ain't here — hasn't been here for the last three hours."

He opened the door, and the crowd surged in with a wild yell. All wore masks and carried weapons. Mrs. Bowers, turning up the light, revealed the hole in the wall. It yawned black and significant. A howl of disappointment greeted its discovery.

"You're pretty clever, partner," hissed the ringleader, a large, raw-boned fellow, dressed in the candle-stained garb of the miner, "but you can thank your wife that you ain't taking Foster's place—that's all."

III.

WHEN Bates and his prisoner stopped in their flight daylight was just struggling into the sky. On either hand the dizzy, ragged sides of a gorge arose, trending to the west. Behind them lay the dark labyrinth of range through which they had wandered half the night.

It had been a cruel tramp. For five hours they had stumbled and sprawled, clambering in and out of gloomy cañons or scaling lofty crags and naked hogbacks. Seldom was the pace slackened. It became a muscle-grinding effort, and the energies were attacked

By the third hour Foster complained, but it availed him nothing. Twice he mutinied; then he rushed on ahead, mumbling curses. The sheriff's gun always found the small of his back.

Once they were stopped in the depths of a narrow ravine by a jump off. They sat on the brink and rested. Then Foster learned something he had not known. The knowledge raised a wild hope within him.

"Know the country?" Bates had asked tentatively.

"No more than you do," he replied with cunning.

He laughed silently in the shadow of his hat-brim when the insinuation went unchallenged. Later, when they were scrambling along on their way, he thought it over and again laughed

Bates was lost hopelessly lost! There were the cardinal points, to be sure; but, on the other hand, he had a fighting chance for his liberty. Yes, more than a fighting chance, one might say liberty itself — a rescue.

He was being helped to this end by the very man who was making such valiant efforts to hold him. He was being driven there at the point of a six-shooter. Could one imagine a richer joke? Snatched from a mob by the sheriff and then herded into freedom—almost against his will, even!

He was still delighting in the reflection of this particular phase, when Bates ordered

a halt. Ahead the outlines of a dense grove of palms loomed strange and spectral in the early morning light. From somewhere in their midst came the gurgle of water.

"We'll grab off an hour's rest here," Bates informed him. "We can't be far from Duncan's. Go on under the trees."

Without a word the man obeyed. But as he walked on he chuckled to himself, and the horrible joy shining in his eyes was lost upon the solitude.

Quenching their thirst at the little brook, they flung themselves wearily upon a carpet of dead leaves in a clearing. Bates, with drawn weapon, turned on his side, facing his prisoner.

"Better be good, Frosty," he said warningly; "I won't stand for a thing."

"I promised back there, didn't I?" replied the other in an injured tone.

"Well, make good—that's all!"

But watchfulness and wakefulness go hand in hand. The strain of seventy-one miles in the saddle, together with the trying exertions of a night escape afoot over twenty miles of trackless region, claims the best part of any man.

Foster saw it in the heavy lids that fluttered over his eyes; he heard it in the slow, deep breathing. Bates would sleep. He knew this—and lay quiet, watching Bates through half-closed eyes.

And when he was not contemplating his captor he passed the time stealing glances at a patch of purple horizon visible through an opening in the underbrush. It was far, far away, and there was a mesa in the intervening space—one of those endless flats sewed thick with flint pebbles and little, shriveled-up cactus plants.

Yes, he knew the country. It had been his "hiding-out" place for six years. He had camped at this very spring the better part of one summer after a knifing affray in the Johnnie district. He had made a discovery at the time. He remembered it now — from the moment Bates tacitly acknowledged his confusion it had pointed a way to freedom.

It was a tiny dug-out butting into a *barranca* where the mesa sloughed away into the deep-sunk valley of sand, three miles from this spot. It lay almost directly in their course.

Here lived "Pop" Porter with a past and a white liver. A sharp old weasel was he, hatching out trouble for every man who flaunted the flash of nickel on his left breast.

Pop had hidden him twice—he would hide him again. The old fellow's life was too nearly at an end for him to relish spending the remainder of it in the Liberty jail. Foster alone knew of his existence, and of the "blind" spring with its green dash of garden. Therefore, Pop would hide him.

Then this nodding minion of the law would flounder still deeper into the desert's web. He pictured him on all-fours, dragging himself up over the *malapai* buttes, searching for Duncan's and deliverance in the south when both lay north. They were fifteen miles southeast of the beaten track of men—fifteen heart-breaking miles that terminated where two smothered wagon-tracks wormed their uncertain way over an ocean of sand.

Ruminating thus, he watched and looked the part of a sleeper. Then at length his chance came. It came sooner than he expected. Slowly the sheriff's eyes closed. Tilting on his side, he settled until his head lolled into the fork of his arm. The .44 sank askew and ruffled the leaves. Foster's gaze fastened on it. His manacled hands, powerless behind him, itched for a grip on the butt.

Then he cursed the fetters and banished the thought.

Instead he rose noiselessly to his feet, and with beastlike stealthiness slunk off. He got a good start, looking back fearfully and on the alert. But he let his eagerness trick him.

Three palms standing in his path called for a sharp turn to gain the shelter of their trunks. Rashly he took the distance in a bound and sprang behind them. A sharp cracking of dry twigs and the sound of a heavy fall followed as, blundering upon the cone-shaped nest of a wood-rat built against the base of the palms, he stumbled over it.

Simultaneously Bates scrambled to his feet with an oath. There was a short pause as he listened — then a crash of snapping branches and the crunch of leaves under foot as he tore down the cañon.

A moment later Foster broke for the south wall of the ravine. He scrambled up a slide in the rim-rock that offered a steep, open way to the top. Because of his shackled hands he pitched clumsily from one footing to the other, spending his speed to keep his balance; and as he struggled upward he looked down with red, wild eyes for sight of the man-hunter.

But Bates discovered him. From far be-

low the oasis he came on a lumbering trot. When within pistol-range he called:

"In the name of the law!"

The fugitive, topping the cliff, interrupted the formality with a curse of defiance. Two bullets sped after him. The aim was good. They screamed in his ear, and he drove on frantically.

Clearing a small slope, he glared about. Scarcely three miles away he saw the break in the mesa where Pop Porter skulked, and laughed at the law. There, also, he would be safe. The thought was stimulating, and added to his daring.

A dense growth of rabbit-brush in the bed of a near-by gulch caught his attention. He swerved toward it. He raced for it with bursting lungs, and had all but gained its cover when the six-shooter again spoke. The shot brought him down. His left leg elbowed, and he struck on his face in the *arroyo* bottom.

Gun in hand, the sheriff reached him, dragged him over roughly on his back, and found the wound. A shattered knee! Then he turned away in a rage and filled the morning air with fearful curses. It had been handicap enough before to be lost in that waterless waste; now, with this hulking human to hug and lug along in the bargain—it looked like ruin.

He was debating the situation with himself, when Foster opened his eyes and groaned.

"This is how you pay me, eh?" Bates lashed out; "with a broken leg! Well, now, I'll show you! You'll hike, you will—you'll hike every foot of the way to Duncan's, you cur!" He gripped the collar of Foster's shirt. "I'll show you where you lost out. Get up!"

Bates made three attempts to get the big man on his feet, then he gave it up. Livid with rage, he stood back a pace and looked him over. The wound was bleeding freely—too freely he feared. A red puddle had formed in the gravel under it, and he noticed that it had already shaped an oozing course for itself.

Drawing his knife, he cut away Foster's trousers above the knee and fashioned the piece into strips. With these he bound the limb above and below its injury, storming meanwhile against the outlaw's cries of pain. Then by main strength he set him on his feet.

After this their progress was as slow as a snail's. Back to the spring they went like a pair of cross-hobbled jacks jerking along, and Bates's wiry frame supported all the heavy flesh of his big-boned captive.

In the shade of the underbrush Foster's wounds were bathed; and the sheriff shinned up a slender palm after the succulent taco, that he might eat.

Hours they rested, and the murderer dozed—but the man-hunter never blinked an eye. The torrid sun was well on its way when they resumed their journey. Foster stood up, complaining.

"You've just got to take them things off my hands, Bates. I can't get away. And I sure can't navigate with my arms tied back like that."

The other regarded him steadily while he drew out his key.

"Foster," he said coldly, "I mean to hold you, see? After the dirty way you slipped up on your promise, I ain't taking no chances." He unlocked the shackle on the prisoner's right wrist and slipped it over his own. "I don't much like to give you the right arm, either; and I wouldn't if I didn't have to steady you on the left. But keep this under your hat—just one pass, a funny pass that I don't savvy, and you'll do your explaining some place else."

Foster's bloodshot eyes wavered and sought the far-off vista of desolate tableland. When they came back his guardian was stuffing the key into his vest-pocket. Foster marked it well, and again the same wild hope that had buoyed him during the night thrilled him. The lower left-hand pocket of that corduroy vest! Therein lay his way to freedom!

He stole a glance at the handcuffs. They were old-fashioned and ponderous, with links large as those on a stake-chain. They were made to hold—and would hold. There and then, he swore to himself that he would get that key—the very next opportunity he would get it. So, thereafter, though he picked his way down the cañon with groans and curses on the arm of his silent keeper, he thought of nothing save the key within reach of his free right hand.

Three hours later they stopped on a swale between two lava buttes. Wild anxiety had crept into the sheriff's face.

"You'll have to go slow on the water, partner," he told his charge. By way of argument, he swung the water-bag from his shoulder and hefted it. "There ain't more'n a gallon left. You've got away with half of it, and it ain't noon." Then he

hung it into place again and took to studying the landscape.

On the west a heavy range tossed a bristling array of peaks high into the cloudless sky; in the south the sparkling flow of the mesa stretched beyond the haze of the horizon—lonely and uninviting. Only on the north did the sameness vary. Here the mesa gave way before a deep sand-flat, which, skirting a low-lying, red ridge of the eastern range, found its way through a wide gap leagues to the west. It was all new country. Where was Duncan's?

Again the prisoner complained—he was always complaining.

"Look a here, Bates," he whined; "look at them flies." He indicated a swarm of bloodthirsty insects that hovered about the wounded knee. "Can't you do something for them? They're eating me up."

Without a word Bates wrapped the mangled joint in the broad folds of his bandanna. After that he sat down on a rock with his captive, and endeavored to work out their salvation from that glaring void that surrounded them. While he puzzled over direction and deliverance, Foster glanced furtively about.

When at length they trudged on again, setting their course to the north, he was still glancing around. Then, too, he moved slower and groaned oftener. Less than a quarter of a mile off was Pop Porter's dugout and his "blind" spring—one of those tiny, damp spots of the wilderness that one must stumble on to find.

Had the worried man at his side only known! Foster reveled in the reflection. But Bates was staring ahead, pointing his nose to the north, always squinting, and squinting longingly, into the gray distances like a faithful retriever. And as he staggered on under his human burden he left behind the very succor he sought.

Finally Foster found what he hunted. Protruding from a jam of black rock fifty paces away was a face. It was a white face, singularly white, and fringed with a mop of shaggy, gray hair. All the hatred of an infuriated brute blazed in its close-set eyes as they followed every movement of the intruders.

Only for a moment did Foster see this seeming apparition, but he knew it was the face of Pop Porter. His recognition of it fevered him. He was assured of escape.

Immediately his behavior changed. Taking advantage of his disability, he revolted. He became the weakling—the helpless, persecuted victim. His moans grew to loud lamentations. The difficulty he experienced in walking increased. He bore down with all the weight of his great bulk on the supporting arm of his captor and dragged along. This last he did by degrees, and Bates's strength failed perceptibly.

Nor was this all. As they plodded on he kept up a never-ending fire of accusation and abuse. He was being ill-treated—being made to suffer for the neglect of a thick-headed sheriff, who should have furnished means of transportation as specified by law. To make it worse they were lost. Was there help ahead? Could he get medical treatment for his splintered knee there? He *didn't* know the country? What kind of a sheriff was Bates, anyhow? All this he said and more with a relish for repetition that was maddening.

In the bottom of a gulch he pulled back and stopped.

"I can't go any further, that's all," he said. Together they stretched out upon the hot sand. Then he broke out: "I'd rather the mob had worked on me last night in Crater Beach. I wouldn't have had to put up with all this — yes, and all that's coming. I'll just die like a dog, that's about the size of it."

They remained at this spot all afternoon, Foster proclaiming his inability to rise with shrill cries of pain. Once Bates freed himself and climbed to the crest of an eminence —but he had been sufficiently vigilant to shackle his prisoner's hands and to remain in full sight.

When he returned despair was plainly written on his face. In a preoccupied way he again bound himself to his charge and replaced the important little key in the same pocket—the lower left-hand pocket of his vest. Foster watched him avariciously.

"We'll stop here till the moon comes up —that'll be about eleven o'clock. If you can't travel then, I'll strike out alone. We're south of our course, I figger. Duncan's ain't over ten miles from here How's your leg?"

Bates took off the bandage and inspected the wound. It was a raw, repulsive thing, reeking with fever, and he noticed that the swelling had spread far up on the thigh. This discovery bothered him. He thought of it for the next hour and worried.

The desperado at his side also worried. He thought of the key—and worried.

It was sunset when Foster again spied the face. It peered forth sinister and motionless from the end of a basalt reef on the slope above the gulch. As before, it contemplated them with hateful eyes.

The outlaw would have dared a signal had not Bates intervened—Bates with his glinting, six-pointed star; Bates, the fear and hatred of that fugitive man-killer, Pop Porter. A moment after Pop dodged out of sight. Then the shadows spread their long shapes over the silent land, and Foster cursed on complainingly.

After darkness fell the fiery end of the sheriff's cigarette glowed on through the long, dragging hours. He spoke once in a voice thick with sleep.

"Saw Laura in town, Foster. The poor kid is all broke up. I told her I'd see you through."

"Aw, tell her to forget it!" snarled the man.

"I did," was the answer. Then the prisoner feigned sleep and listened with eager ears.

He lay very quiet on his back—and waited. There was no sound save his deep, steady breathing. Bates heard it and was satisfied; but beneath it all—beneath this very semblance of peace and rest was a great pain. The hazard and excitement and anticipation of the hour deadened the sensibilities of this big brute, Foster. He let the ravages of the pain go unanswered, and the pain gnawed on with soul-racking intensity and drove farther into his fountain of life with each pulse-beat.

But never once did he stir. When the agony seemed about to consume him he would turn rigid. Then his clothes dripped with sweat and his glassy eyes pried frenziedly into the starry sky.

During these periods he could have screamed his way into insanity. He could have outraged that loathsome, bloated knee with the same ferocity that goads the rattler to strike itself at the spot just hurt. Instead, he mocked sleep and paid the price of his love for freedom.

After a long time that which he had hoped and prayed and cursed for came to pass. The sheriff slept. He waited until the man's breath gurgled in his throat—then until he had snored rhythmically for some time.

When he could trust himself he passed his free hand far over and found the vest-pocket. It was an ample pocket, and his fingers slipped in easily.

The next moment they had closed over the key.

A shiver of joy swept over him. Carefully he drew it forth. It was almost clear of its hiding-place — then Bates moved — started in his sleep and slumbered on again.

But—Foster's fingers came away empty.

Swallowing his curses and disappointment, he tried again with the same stealthiness. The key was gone. As rashly as he dared he searched the sides and bottom of that pocket and the one above. He felt for the familiar holes in the lining. He did this many times—but there was neither key nor holes.

In a fever of apprehension he reached still farther over the recumbent form and raked over the sand with sensitive fingers. Then, little by little, the hopes he had cherished gave way before the violence of his great pain. Unable to bear up longer, he shrieked and shrieked, and the metallic hills blared an accompaniment.

"Foster! Foster! Great Heaven!"

Bates never finished. He awoke to be swept off his back by a mighty wrench that sprung his arm at the shoulder. A great cry escaped him. Ere he landed he was sprung upon, whipped back, and brought down with a crash. He struck flat like a giant, wing-spread bat across the maniac's middle.

For a moment the shock stilled the other. Deep in his chest his breath rumbled fearfully. Burning with distemper, it whirred through yawning nostrils. His body twitched and tossed and stiffened and doubled, while his tousled head rolled loosely from side to side.

In the brief respite the sheriff thought giddily of release. His right arm was dead, and the handcuff still held. The thought of what such another mauling might mean rallied his faculties. He prepared himself—spread his legs wide and crowded every ounce of his weight upon the under man.

Then he felt for the key. Even as the squirming wretch beneath him had hungered for his freedom ten minutes before, so did this man—his keeper.

With horror clutching slowly at his heart, he dragged one pocket after another. He did this much as Foster had done it, save that he was more complete in his search. First the pockets of his vest, then those of his trousers.

From one to the other he went and began all over again — digging frantically. He looked for holes in the lining and found

none. After a while he stopped and moaned over his predicament. There was no key.

Under him Foster kicked about crazily, gaining strength with every new minute. Bates lay prone and waited—helpless. He wondered what would be the end? He gazed dumbly to the north. The moon had risen. Through a gap in the near hills he made out the indistinct sky-line of the red ridge.

Would he survive the fury of this man's delirium? Were help within five miles, could he hope to reach it anchored as he was to this demented giant? The situation was fearful!

Then he recalled the shattered knee. Something told him to investigate. He tore the handkerchief aside. Black as ebony it gleamed, bloated to three times its size.

In that one glance he knew. Foster was dying!

The realization of this awful truth froze the blood in his veins. He fought the grisly picture that flashed into his mind. Whirling, he hung low over the outlaw's distorted face and scanned it with horrible avidity. As if in answer to his scrutiny, Foster's struggles ceased and into his eyes came the light of reason.

They looked at each other long and steadily—man-hunter and man killer, law and outlaw. One, brimful with brute vigor, whole, life-loving; the other, a half corpse, the dregs of his vitality oozing rapidly. They looked into each other's eyes, did these two—and understood.

Then Foster spoke.

"You done it," he gasped in a faint falsetto; "I'm rotten from my waist down. It's eating my innards! You done it—yes, you did! And now you're going to kill me! You're going to kill me so's you can save yourself!"

He gritted his teeth and strained wildly as a spasm of pain shot through him. Bates crawled away at arm's length, and fastened him with a horrible stare.

But the throe passed. His gaze wandered up the side of the gulch, where the black rocks glinted in the moonlight. Almost instantly it centered, and brightened expectantly. Starting up, he threw out his free hand.

"Pop!" he screeched, and the white face of an old man vanished. "Pop! It's Phil—Phil Foster! Come and get me, Pop! Bates is going to kill me!"

He tumbled back in convulsions, and the sheriff, who had looked about him eagerly, saw nothing. Straightway he was picked up and hurled through the air. He collided with earth five times. At the end of those fatal handcuffs he dangled, crying in terror, while the life was being beaten out of him—beaten out of him with the help of terrific kicks and blows.

Not until this new danger had sunk deep into his mind did he act. Then he made a frantic effort to reach his six-shooter. It lay glittering in the moonlight, two yards away. He tried to pull it to him with the toe of his boot—but it was just out of reach.

Casting about helplessly for means to destroy the incarnate energy of this dying monster to which he was linked, he launched out with his fist. The man would die, anyway. He would kill him! It was either that—or be killed! There would be a chance for life afterwards, even though he was weighted by a corpse.

He took the offensive and struck at every opportunity. Ponderous smashes they were, driven in by the fist of his free left arm, and they cut into Foster's distorted face with ghastly effect. Now, as never in his career, he aimed to slay. The craving seized upon him like a great ecstasy. Time after time he used his feet, his heavy heels crashing into vital spots.

Then it slowly dawned upon him that he was being bested. For every blow he gave he was catapulted in return and mauled with twofold fury. The knowledge crazed him, and he fought on with all the perfidy at his command; he fought on with the fury of a cornered beast until the unexpected happened.

In his dying struggles, Foster found the sheriff's left armpit with his shattered knee. The manacles clicked as he drew hard upon them. Too late did Bates realize the power of this horrible leverage. Desperately he battled against its viselike grip, then the free foot of the desperado descended and chopped him into unconsciousness.

Not until the sun stood high and burning in the sky did the sheriff move. He lay flat on his back, his wits gathering slowly. It was a long time before he sought to remember. First came pain eating into every nerve-center of his body; then a terrible thirst and wolfish hunger. He wondered vaguely with closed eyes. Then, by degrees, it all came to him—the ride, the mob, the getaway, the death struggle!

But what of Foster? Had he escaped?

Or was he still— The haunting horror of the night laid an icy hand upon his heart.

Fearfully expectant, he turned on his side and squinted through his swollen lids. Unbelieving, he looked about. Where was Foster?

The sand showed signs of a mighty battle. It was gullied and windrowed, and tatters of cloth were strewn over its surface. Some yards away lay a shoe with its buckle gone. Foster's shoe!

But where was Foster?

Bates sat up perplexed. His brain reeling, he reflected, almost afraid of himself. Then, after a while, he staggered to his feet, and surveyed his surroundings vacantly.

Against a rock rested his water-bag. He limped over and picked it up. It was full, and he drank long and deep, wondering at its fulness. His coat next caught his attention. Protruding from a pocket was the greasy piece of a paper bag. Dully he took it and read the scribble:

> There's a freighter's camp at the point of the red ridge. Your old man and me was pardners years ago. That's why I cut you loose.

He read the scrawl a dozen times and pondered over every word. Then for the first time the flash of something on the wrist of his crippled arm attracted his eye. It was one of his pair of handcuffs. Wincing with pain, he raised the lifeless member and studied the lone manacle in astonishment.

The connecting links had been severed—cut clean as if done by one stroke of a sharp blade!

Deep in thought, he slipped on his coat. In one pocket he discovered a flask of whisky; in the other, three bacon sandwiches, a boiled egg, and some dried prunes. He contemplated them incredulously, and again perused the note.

"Partners," he echoed aloud. His swimming eyes scanned the forest of gnarled, lonely buttes above him. "You sure were—and nobody'll be any the wiser."

Though he looked back often as he hobbled away in the direction of the red ridge, never once did he behold the shrunken, white face that beamed after him. There was a quiver in the lips, and the eyes were misty with memories of forgotten years.

COULDN'T BLUFF JIM KNIGHTS.

EVERY commuter on the Chicago and Northwestern Railroad who has lived on the north shore (Chicago), longer than six years knew Jim Knights, who died recently. If he did not, it was because he does not observe the men who punch his ticket on the way to and from the city.

James Scott Knights was one of the oldest and most picturesque figures among the Northwestern conductors. Despite his bruskness, he had many friends who knew the largeness of his heart.

For thirty-six years Knights punched tickets on trains of the Milwaukee division between Chicago and Waukegan.

Seven years ago Knights was retired on a pension, as he had reached the age limit. Since then he had lived in Waukegan. He died recently, and his funeral in the northern town was attended by many railroad men.

The conductor on a suburban train has as many opportunities as perhaps any one to study human nature and its little frailties, and Knights had made a thorough study of them while he watched the north shore grow from one or two scattered villages to a number of large suburbs.

They tell of the time a high school pupil tried to go from Highland Park to Waukegan free. He boarded the train and at once became deeply interested in his paper.

Knights came along and asked for his ticket. The youth looked up in feigned surprise and said:

"Why, you got it!"

"Where did you get on?" asked the conductor.

"Evanston," was the prompt answer.

Jim went on and the boy thought he had saved a fare. But he did not know the conductor. Knights figured the thing out a while, and after passing Lake Bluff went up to his passenger again and demanded a fare. Protestations were useless and the youth gave in.

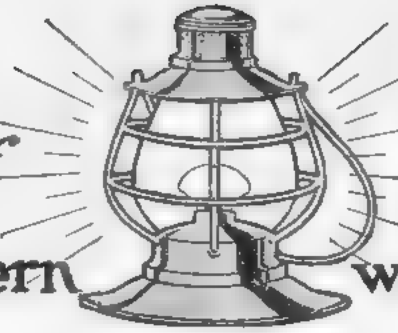
"The fare from Evanston to Waukegan is sixty-three cents," said Knights.

"But I got on at Highland Park," protested the cornered one.

"You said you got on at Evanston," said Jim, "and I wouldn't presume to doubt your word. You'll pay sixty-three cents."

He paid. —*Chicago News*.

By the Light of the Lantern



Ask us what you want to know

WE want to be as useful as possible to our readers, but, because of the great popularity of this department, we are obliged to impose certain restrictions. It is limited to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials. The editor begs that readers sending in questions will not be disappointed if the answers do not appear as early as expected. Delays are often unavoidable for two reasons: the magazine is printed two months in advance of the date of issue, and it frequently takes weeks to secure correct answers, owing to the complexity of the questions.

WHAT is meant by a manifest freight-train?
(2) Do they make better time than the through freights?

(3) Do the regular through freights and the local freights carry the same flag?—C. W. S., McMurray, Wisconsin.

(1) It was formerly the practise on some roads, and doubtless still is, to have a number of freight schedules on the time-table and handle all freight-traffic in this way, running as many sections as may be required. This practise is now being replaced very largely by that of having only important freight, usually termed "time" or "manifest" freight, represented on the time-table, all other freights, except locals, being run as extras.

(2) They generally make better time and are given the preference because of their time-table rights, the through freights being run as extras and not appearing on the time-table.

(3) If both the through freights and the locals appear on the time-table, as your question intimates, neither would carry signals on the engine unless each was running in several sections, whereupon the same rules apply to each.

Our impression is that both the Northern Pacific and the Great Northern run manifest or time freights.

W. J. V., Solon, Ohio.—There are no particularly unusual types of engines on any of the roads mentioned in your letter, except that the Lehigh Valley has a preference for the mother hubbard or turtle-back design.

(2) The Lehigh Valley is double-tracked between Jersey City and Buffalo. We have no information at this writing in regard to the second track laid on the other roads.

(3) They are all independent.

(4) The Chicago, Indianapolis and Louisville Railway (Monon Route) has 122 locomotives.

(5) The principal dimensions of engine No. 2475, Lehigh Valley Railroad, are as follows: Type, Atlantic; cylinders, 21 x 26 inches; diameter of drivers over tires, 77 inches; boiler-pressure, 200 pounds; tractive-effort, 25,310 pounds; weight on drivers, 99,700 pounds; total weight of engine and tender, 303,100 pounds; fuel, bituminous coal; number of flues, 374; grate-area, 51.2 square feet; heating-surface of flues, 3,164 square feet; heating-surface of fire-box, 160 square feet; total heating-surface, 3,324 square feet.

On June 21, last year, this engine came into special prominence through a run from Buffalo to Jersey City, 446.7 miles, on which the fire was not cleaned nor was coal taken. The train was the regular No. 4, scheduled between the two cities in 11 hours and 57 minutes. The actual time on the road was 12 hours and 3 minutes. The average speed, deducting stops, was 41.8 miles per hour. The same engine-crew was in charge of the locomotive for the entire distance.

The run was intended by the railroad company as a practical demonstration in fuel economy, and it also speaks amazingly well for engine efficiency, as nothing whatever occurred to mar the success of the remarkable performance.

DID a train ever run at the rate of two miles per minute for 10 miles between New York and Chicago?

(2) What is the fastest train in Florida, and what time does it make?

(3) Which is the largest railroad entering the South?

(4) What is the rolling-stock of the Florida East Coast Railway, of the Atlantic Coast Line, and of the Seaboard Air Line?—J. M. W., Lake Weir, Wisconsin.

(1) If it did, the incident is not officially recorded. The only speed approaching this of which there is any record, was run on the Plant

System, between Fleming and Jacksonville, in March, 1901, when 5 miles is said to have been covered in 2 minutes 30 seconds. Particulars concerning this performance are rather vague, but it is not believed that the train consisted of more than three cars. The grade was descending.

A reliable record is that of the Empire State Express in May, 1893, 1 mile in 32 seconds, or 112.5 miles per hour for that time. Another of practically equal reliability was on the Philadelphia and Reading, July, 1904, Egg Harbor to Brigantine Junction, 4.8 miles in 2 minutes 30 seconds, or at the rate of 115.20 miles per hour

(2) The fastest train entering Florida is believed to be the New York and Florida Special, of the Atlantic Coast Line. This train travels 1,485 miles between New York and Knight's Key in 42½ hours, an average speed of about 35 miles an hour, including all stops, etc. On many parts of the run the speed is in excess of 60 miles per hour.

(3) The Southern Railway has the greatest mileage of the roads entering the South, and the Atlantic Coast Line of those entering Florida.

(4) The Florida East Coast Railway has 89 locomotives, 1,484 freight-cars, 108 passenger, and 66 miscellaneous cars; the Atlantic Coast Line has 672 locomotives, 25,350 freight-cars, and 606 passenger-cars; the Seaboard Air Line Railway has 439 locomotives, 14,991 freight, and 351 passenger-cars.

B. A., Spokane, Washington.—Many of the interurban electric lines do not require their motormen to have had any previous experience on city cars, preferring to impart all necessary instruction themselves. It would, of course, be to the advantage of the applicant if he were in possession of it, but it is not required. There are so many different lines that it would be out of the question to quote the list here.

IF a train should break down between stations, and the 16-hour law would overtake the crew, could the hind brakeman be allowed to go back and flag regardless of the law and without being fined if caught? If he failed to flag and another train should run into the rear end, would the crew of the train tied up under the 16-hour law be to blame?

(2) Are you supposed to flag in yard limits if the train should stop?—R. E. H., Wellington, Kansas.

(1) This situation is apparently taken care of in Section 3 of the administrative rulings of the Interstate Commerce Commission as follows:

> The exemptions prescribed by this section contemplate only such accidents as could not, by the exercise of diligence on the part of the carriers, their agents, or officers, have been anticipated and prevented.
>
> Employees performing excess service are not liable to the penalties provided by the act.
>
> Employees unavoidably delayed by reason of causes that could not, at the commencement of a trip, have been foreseen, may lawfully continue on duty to the terminal or end of that run.

The flagman should by all means protect his train in disregard of any law which might endanger it. In the event of accident arising through failure to do so, both his conductor and himself would be held responsible. In cases of doubt or uncertainty the safe course must be taken and no risks run.

(2) Yes

DR. G. M. M., Chicago.—The old Baltimore and Ohio camel-back engines, as built by Ross Winans, had no leading-truck, simply the connected drivers. Some years after their advent, Thatcher Perkins became master of machinery of the B. and O. and introduced what became known as the "Perkins ten-wheeler."

At first glance this type resembles the Winans camel; that is, the shape of the boiler was the same and the cab was on top of it, but Perkins substituted the straight stack for the regular camel diamond stack; reduced the number of driving-wheels to six instead of eight, and added a four-wheel leading-truck.

The Perkins engines ran for a long time on the B. and O. and did excellent work. The writer recalls firing one of them over twenty years ago, and at that time there were several of them in road service on freight. The old Winans camels did all the heavy switching until 1892 between Locust Point and Mount Clare in Baltimore. They were not regarded as curiosities by any means, but as good, serviceable engines.

G. F., Portland, Maine.—The two hours' rest at noon, which is merely between runs, and is spent in eating a meal, does not constitute "rest," the time being too short to permit any to be taken, but so long as the hours of work have not been consecutive, the law provides that an aggregate of 16 hours may be worked in a 24-hour period. This must be followed by eight consecutive hours off duty before another 24-hour period may begin. If the service has been 16 consecutive hours, it must be followed by 10 consecutive hours off duty.

WHAT is the proper way to treat a broken steam-chest on an eight-wheel engine with a plain D valve when it breaks on the road and you want to fix up so as to proceed with the other side?—C. H. A., Kalamazoo, Michigan

If this accident interferes with the running of the engine, you will have a very mean job ahead of you before getting under way with the good side, and it is really one scarcely advisable to attempt without the assistance of the shop.

The only thing to do is to prevent the steam from entering the disabled side, and this would have to be done by opening the smoke-box and

loosening up the steam-pipe on that side. If the lower joint can be removed from the pipe or has one flat side, a "blind gasket" or thin sheet of metal may be inserted to cover the opening and the joint tightened again. The valve-rod and main-rod must also be disconnected on the disabled side and the crosshead blocked

This may read all right, but a moment's reflection must convince one that it would be practically impossible to do this work in the hot smoke-box, in fact, without removing the bulk of the netting and draft appliances. Then, too, steam-pipe bolts are generally pretty well baked and corroded, and do not let go as easily as they might, even with the facilities of a shop at hand to remove them

If the chest is not broken too badly the studs will keep it from flying clear off, and by driving wedges between the studs and the sides of the chest the leak may be reduced. Practically any resort is preferable to that first intimated.

In the event of the steam-chest being broken and gone entirely, also the studs, some sort of repairs might be effected by filling the end ports up with waste, old overalls, or anything which can be jammed tightly into them. On top of this lay a piece of stout plank, two inches thick, if it can be found, one piece of plank, of course, in each port.

Another and longer piece of wood should then be laid on the seat, lengthwise the engine, so that it will rest on each piece in the ports. The entire arrangement may then be tightly secured by chains passing around the cylinder and wedges driven until the desired pressure is secured

A broken steam-chest is about one of the meanest things which can occur to an engine-crew when on the road, but fortunately it is of uncommon occurrence and the leak is generally such that it will not render the engine helpless, although, if on a freight-train, it would probably be necessary to set it off or wire for an engine to do so if the leak prevents you from handling the cars.

F. H P, Manchester, Iowa.—Working models of up-to-date locomotives are very scarce in this country. We do not know the address of any firm handling them. Several machine shops furnish rough castings and other parts and the purchaser as a rule builds the locomotive. We can give you the addresses of these if you will write again, but wish to assure you that these models are an expensive pastime, requiring much patience and quite an array of tools.

GIVE the signals used by brakemen on the steam railroads by night and by day.—B W. B., Port Dalhousie, Ontario.

The following are those recommended by the Standard Code and have been generally adopted by the railroads. It is no doubt understood that the hand or a flag, moved the same as the lamp at night, give the same indication. Swung across the track means stop; raised and lowered vertically, proceed; swung vertically in a circle across the track when the train is standing, back; swung vertically in a circle at arm's length across the track when the train is running, train has parted; swung horizontally in a circle when the train is standing, apply air-brakes; held at arm's length above the head when the train is standing, release air-brakes. Any object waved violently by any person on or near the track is a signal to stop.

H. C., Abingdon, Connecticut.—If you can get hold of Poor's "Manual of Railroads" from your local agent it probably contains the historical matter which you desire in connection with the New York, New Haven and Hartford Railroad. It is far too long to be reprinted here. The grade between Putnam and Hampton is said to be a trifle over two per cent in one place, but we have no means of learning whether this is the greatest rise in it or not. The so-called "Ghost" train ran several years ago between New York and Boston and was a very exclusive affair, with splendid equipment for the period. We think it ran every day save Sunday, and derived its name from the fact that the equipment was largely white. We are endeavoring to discover the history of this train, as its career was most interesting. Its engineer is or was running between Boston and New Haven very recently. The New York, New Haven and Hartford uses Atlantic, Pacific, ten-wheel, and eight-wheel engines in passenger-service, depending on the conditions. The type it principally employs for freight is the mogul. Write to the nearest division superintendent or trainmaster in connection with a brakeman's position.

F. D., Geyserville, California.—The Northwestern Pacific Railroad has 425 miles of operated road and 44 miles additional under construction; 61 locomotives, 1,283 freight-cars, 193 passenger, and 185 miscellaneous cars.

(2) No record, at present available, indicates foreign control of this road, and we are inclined to the belief that it is independent.

HOW can a saddle-tank engine with no trucks and which is down on her boxes, be raised?—G. A. F., Mare Island, California.

Such engines are usually not equalized between their springs, but if such is the case, and the engine is down about the same on all of her boxes, a convenient way to raise her is to jack up front and back until the binders are against the bottom of the boxes. It will then be possible with a bar and chain to pull the equalizer down sufficiently to put a clip or "horseshoe" of any desired thickness between the gib and the equalizer. This must be done on both sides of the engine, and a piece one-half inch thick will raise her considerably.

If the engine has no equalizer, and is inde-

pendently hung on each spring by a hanger at each end, it is often easily possible, after jacking up as before, to relieve the springs of as much weight as possible, to pry the ends of the spring down with a bar until a "U" or horseshoe, so called, can be slipped under the spring gib.

The long way to do the job is to remove each hanger and shorten it in a blacksmith's fire, but where horseshoes can be used it should be done, as the same result is accomplished.

H. T. A., Rockingham, New Hampshire.—The chief engineer of a railroad is ordinarily charged with the solution of all problems pertaining to permanent-way, track, bridges, buildings, location of new line, and with the design of all new structures.

In some instances he has also under his jurisdiction the signal system of the road. He may have under him a principal assistant engineer, engineer of bridges and buildings, consulting engineer, and so on, and being relieved of the detail work, he is largely at liberty to decide the larger questions.

(2) The office is always maintained, and not only when new work is under way, as many suppose.

(3) They generally start as surveyors or in the office of some division engineer and, as in the other departments of the railroad, advance themselves to positions of responsibility.

B. D., Florida, New York.—The Lehigh and New England Railroad has 170 miles of operated road and 32 additional miles under construction. The rolling-stock consists of 22 locomotives, 1,565 freight cars, 9 passenger, and 35 miscellaneous cars.

C. A. J., Palmer, Texas.—Statistics issued by the Interstate Commerce Commission indicate that the number of railroads in the United States is about 2,500. In arriving at this number, we presume that the individual roads composing the different systems were taken separately; that is, all those leased or controlled, which in the instance of some of the larger systems or groups may include 20 roads or more.

P. M. L., Decatur, Illinois.—If you will call on J. E. Stumpf, division superintendent of the Wabash in Decatur, he will no doubt advise you in regard to the fastest run on that road, and you should also be able to secure this information from any one of the agents. These gentlemen are no doubt also posted on Illinois Central conditions.

W. M. B., San Francisco.—Refer to an article in the June, 1911, number of the RAILROAD MAN'S MAGAZINE, by Thaddeus S. Dayton, entitled "Keeping Track of the Freight," which will give you practically all of the information desired. Ordinary repairs are charged against the company owning the car, and accident repairs against the company responsible for the damage. The matters are all handled under master car-builders' rules with comparatively little confusion or contention.

C. J. B., Athens, Ohio.—You have them right so far as we can learn, Indianapolis, Indiana, and Lima, Ohio, in the order named. The statistics, however, are far from complete, and some change may have occurred since the last compilation.

V. J. B., Yonkers, New York.—See reply to "W. H.," Oak Grove, Missouri, in the April Lantern Department. It is permissible to add as many sections to a limited train as the requirements of the traffic may demand. On some roads the term "limited" has more reference to the accommodation afforded than to the time, or, in other words, only so many passengers will be accepted.

J. B. S., Mobile, Alabama.—For the height of the bridge mentioned on the Denver and Rio Grande Railroad, would suggest that you address J. G. Gwyn, chief engineer, Denver, Colorado.

IS there such a thing as twenty-four-hour time in Canada, time running consecutively from 1 o'clock to 24 o'clock?—Q. H., Hope, Arkansas.

Such a system has been in operation on railroads there for a number of years. The trainmen's watches have dials the same as those used in this country, but with the addition of a small "13" over the character indicating one o'clock, 14 over two o'clock, etc. Half past six in the evening would be 18.30 o'clock.

W. M. J., Brooklyn.—(1 and 2) The class K-1 engines of the Erie (4-6-2) were built in 1906 and 1907. These are numbered from 2500 and weighed 230,500 pounds, 149,000 pounds being on drivers. They were only exceeded in total weight at that period by the class K-28 of the Pennsylvania Railroad. These weighed 272,000 pounds, with 183,900 pounds on drivers, and were the largest of the 4-6-2's.

They still retain supremacy in this regard according to the statistics of June 30, 1911.

The principal dimensions of the Erie's 2500 or K-1 class are as follows: cylinders 22½ inches by 26 inches; diameter of driving-wheels, 74 inches; diameter of trailing-wheels, 50 inches; diameter of engine-truck wheels, 36½ inches; heating-surface of flues, 3,958 square feet; heating-surface of fire-box, 194.7 square feet; total heating-surface, 4,153 square feet; grate-area, 56.5 square feet.

(3) Locomotive No. 50000, which has been running on the Erie for some time, does not belong to that company but to the American Locomotive Company. It is an experimental 4-6-2 type, and was built to demonstrate the latest knowledge of proportions and improvements in the design of details, combined with the use of the very best materials obtainable. Its weight in working order is 269,000 pounds, of which 172,500 pounds is on drivers. It is not as large or as powerful as the Pennsylvania K-28 mentioned in answer to your first two questions.

(4) The principal dimensions of engine 50000 are as follows: cylinders, 27 x 28 inches, tractive-effort 40,800 pounds; diameter of driving-wheels, 79 inches; diameter of trailing-wheels, 50¼ inches; diameter of engine-truck wheels, 36 inches; heating-surface of flues, 3,800 square feet; heating-surface of fire-box, 248 square feet; total heating-surface, 4,048 square feet; grate-area, 59.75 square feet.

(5) We have no official figures showing fast or unusual runs on the Erie, with the exception of that between Jersey City and Buffalo on February 13, 1898, when the distance, 423 miles, was covered in 7 hours and 30 minutes, or at an average speed of 56.4 miles per hour. The train consisted of three cars, but no data is available concerning the total weight or the class of engine which hauled it. It was a very remarkable run and attracted considerable attention at the time. It no doubt represents the Erie's best speed record for that distance.

(6) The Erie is a double-track road; that is, over the main line from Jersey City to Hornell, New York, about 330 miles, but the remainder of the main line to Chicago is practically single-track. The Buffalo division from Hornell to Buffalo is double-track.

C. W. A., Chicago.—The chief engineer of the Canadian Pacific Railway is J. G. Sullivan, of the west lines, located at Winnipeg, Manitoba, and J. M. R. Fairbairn, east lines, Montreal, Quebec.

O. F. K., Philadelphia.—In regard to securing a picture of engine No. 3009, of the Santa Fe, note reply to "F. C.," Ray, Kansas. The engine is of the 2-10-10-2 type.

(2) For books on firing, combustion, etc., you might request *Railway and Locomotive Engineering*, New York City, for its list. If you have not already done so, by all means read the article on combustion and firing by Robert H. Rogers which appeared in the RAILROAD MAN'S MAGAZINE, August, 1911.

O. O. S., Tampa, Florida.—It is utterly beyond our resources to advise you in regard to the number of loops and switchbacks on railroads of the United States. If such information exists in any compiled form, we have never seen it. You might, however, take the matter up with Walter E. Emery, secretary of the Road-masters and Maintenance-of-Way Association, P. and P. U. Railway, Peoria, Illinois, who may have something of the kind in his records.

S. T. C. V., Bristol, South Dakota.—Address H. I. Whittenberger, superintendent Grand Trunk Railway, Montreal, Quebec, who will no doubt advise you in regard to the form of eye test now used on that road. For your encouragement it may be added that none of these examinations, so far as our experience leads us to believe, need have any terrors for one in possession of normal vision.

WHAT is a "lead-lined" journal-bearing?—L. C. S., Baltimore.

This is a journal-bearing which has its inner surface covered with a thin layer of lead, so that it may fit itself to the journal as soon as subject to wear. Such bearings are often called Hopkins journal-bearings. A variety of other bearings are more or less similar, but a greater quantity of lead or Babbitt metal is frequently used.

E. H. B., Hannibal, Missouri.—(1 and 2) There is little uniformity between railroads on the subject of permitting the use of glasses by men in the train service. It may be said, however, that if the required examination can be passed without them, there would be no objection to their use. If a man's eyes should become weak in the service and the fact became known, he would, of course, be reexamined, and the action to be taken would in all probability be at the discretion of the examiner.

Examinations are now generally conducted with the actual signals used on the road and not by reading type as formerly. Many men to whom these signals are perfectly distinct, use glasses for reading, and this is often permitted. Firemen are required to undergo the eye test before being promoted to engineers.

(3) The Chicago, Burlington and Quincy Railroad has 1,598 locomotives; the Missouri, Kansas and Texas Railway, 537 locomotives, and the Wabash has 662.

(4) It is rather difficult to essay an opinion on what changes will be made in the steam-locomotive in future years. The limit has been reached in both height and width, and so far as size is concerned, the question can only be one of length. It is believed that the ingenuity of designers will now be concentrated on the development of the locomotive within itself, and this, in fact, is the procedure at present. The addition of superheaters and improved forms of valve-gears may yet result in thirty or forty per cent more efficiency with the same weight and dimensions. All things considered, the prediction may be made that the next ten years will not bring

forth any startling changes, except in possible internal improvements.

C. E. R., Utica, Illinois.—The longest continuous main-line in the world is that of the Trans-Siberian Railway from Moscow to Vladivostok, 5,261 miles. It was opened in 1901, and its estimated cost of construction was about $200,000,000. The longest continuous main-line in North America is the Canadian Pacific Railway, Montreal to Vancouver, 2,909.5 miles, and in the United States the Atchison, Topeka and Santa Fe has 2,264 miles between Chicago and Los Angeles, California.

H. E. B., West Union, West Virginia.—(1 and 2) Fully reliable statistics concerning the losses suffered by the various railroads during the Civil War can only be found in the records of the War Department, but they were far less than is popularly supposed. Considerable track was torn up, which was promptly relaid, but comparatively little damage was done to equipment. So far as we can learn, the railroads stood their own losses without reimbursement by the government.

(3) Comparison of the equipment of big railroad systems is unfair. It cannot well be made, in the first place, on account of the tremendous difference in the length and general layout of the various systems. Many have small and very profitable branch lines on which a heavy engine could not be used, and this accounts for the presence of the old-timers on which many poorly informed critics base their opinion concerning a road's rolling-stock at large.

(4) The operating income of the Pennsylvania Railroad for April, 1911, was $6,496,977 57, much in excess of the same for April, 1910, which was $5,254,031.97. The former amount is greater for the period than that of any other system, hence the Pennsylvania may be assumed to be the richest property.

(5 and 6) The road mentioned above handles the most freight. Its control is vested in American capital.

J. G. S., New York City.—You can make application to any division superintendent on the roads mentioned for the position of towerman, and if that employment is not arranged through his office, the application will be referred to the proper official for reply. Applicants for this position are supposed to be operators, save in rare instances.

L. J. A., Chicago. Egide Walschaert inventor of the Walschaert valve-gear, was born in 1820 at Mechlin, a small village in the vicinity of Brussels. On October 5, 1844, M. Fisher, engineer of the State Railways at Brussels, made an application in the name of Egide Walschaert for a patent of an invention relating to a new valve-gear for locomotives. This Belgian patent was accorded by royal decree on November 30, 1844, for a term of fifteen years. Walschaert died on February 18, 1901, at St. Lilles, near Brussels, three years before his valve-gear was introduced into this country, and as this was the case, it was necessary to protect it by an American patent. You will find the Walschaert valve-gear fully described in the November, 1910, number of the RAILROAD MAN'S MAGAZINE.

I WISH a formula by which I may be able to figure out the resistance of cars of different weights.—X., Pennsylvania.

The construction of road-bed, speed of train, and various other conditions necessitate the following formula. Resistance in pounds per ton=7.3+(speed in miles per hour squared ÷ 200)+(20 x per cent of grade.)

N. D. M., Weston, West Virginia.—The two men, the rifle, and the bullet are all moving with the speed of the train, hence the result would be the same as though the bullet had been fired on the solid ground. The man in the front of the train would be hit, provided the aim was good, no matter whether the speed of the bullet was ten feet or ten thousand miles an hour. The speed of the train has nothing whatever to do with the question.

HOW many miles has the Canadian Pacific Soo, and South Shore, and how many cars and locomotives belong to each road?

(2) Describe the Joy valve-gear.

(3) What type of superheater is regarded as the best?

(4) What is the weight and general dimensions of Soo line cross-compounds 2425 and 2426?

(5) How many engines and cars has the Chicago, Milwaukee and Puget Sound Railway.—C. N., South Range, Wisconsin.

(1) The Canadian Pacific has 10,480 miles of road in operation, 1,637 locomotives, 53,525 freight, and 2,074 passenger-cars; the Soo line, 3,770 miles in operation and additional mileage under construction, 495 locomotives, 24,017 freight, and 345 passenger-cars. The South Shore Railroad is 2 miles long with an equipment of 2 locomotives and 6 miscellaneous cars.

(2) This is a form of valve-gear in limited use in Great Britain. It is of the so-called "radial" type, which derives its motion from an arm attached to the main-rod near the wrist-pin, the link and valve receiving their motion from the main-rod. Any point in the main-rod (connecting-rod) has an elliptical motion, more or less flat, as it is nearer or farther from the wrist-pin; a second point on an arm which pivots on one end at such point on the main-rod, and at the other on a second arm pivoted under the cylinder, has an irregular motion somewhat elliptic; and a third arm pivoted at the lower end at such point and bearing near the upper

end a link-block and connected at its upper end to the valve-stem, gives the valve a to-and-fro movement, the amount of which varies with the relative position of the block and link.

The special advantage of the Joy valve-gear lies in its use on the inside connected engines, which are largely used abroad, in that it gives great capacity to enlarge the cylinders. Other advantages of this gear are simplicity of working parts and absence of frictional surfaces compared with the larger surfaces of the eccentric-gear; simplicity of repairs to the joint-pins, and the fact of there being less derangement to the valve-motion when such joints require repair.

The working parts, being brought forward, are directly under the observation of the engineer. Every part is accessible when the engine is running; the cylinders may be closer together in inside-cylinder engines, and there is permitted a larger bearing on the crank-shaft for single-framed engines.

The disadvantages of this gear are (1) liability to extra wear of parts for outside-connected engines, (2) more danger of breakage of main-rods, (3) interference with regular steam distribution through the vertical play of the main axle on a rough track. The Joy valve-gear enjoyed only an exceedingly brief popularity in this country, being the shortest lived of any of the radial type. The best examples of the latter are the Walschaert, Baker, and the Pilliod. They are all outside motions, deriving the same either from the crosshead or from a combination of the crosshead and main crank-pin, and possess no disadvantages of the Joy gear.

(3) In locomotive practise there are two distinct methods of superheating steam. One is known as the smoke-box superheater and the other as the smoke-tube superheater. The former type is placed in the smoke-box of locomotives, where it absorbs the heat which would otherwise pass out of the stack. Smoke-box superheaters are installed without reducing the saturated steam heating-surface of the boiler whatever, hence the superheat obtained through their use is a direct gain in fuel economy, from which, of course, the first cost, maintenance, and care of the superheater must be deducted. Such superheaters only yield a moderate amount of superheat, say, from 40 to 60 degrees, but sufficient to insure dry steam in the cylinders. Smoke-tube superheaters, on the other hand, are installed in longitudinal tubes larger than the regular boiler-tubes, which displace from one-quarter to one-third of the normal number of boiler-tubes, and hence reduce the saturated steam heating-surface of the boiler considerably. There are several types of these superheaters in use, among them the Schmidt, Vaughn, Emerson, and Cole, all of which are similar in principle, differing only in modes of application and in mechanical details. Statistics indicate that the Schmidt superheater has been applied to more than 5,000 locomotives in this country and abroad. This is of the smoke-tube superheater type and seems to give the best general satisfaction.

(4) Address T. A. Foque, general mechanical superintendent, Minneapolis, Minnesota, who will no doubt furnish the information. We do not find any record of these engines in our files.

(5) Two hundred and eighty-nine locomotives, 11,272 freight, and 149 passenger-cars.

B. W. K., Troy, New York.—Information was asked in regard to the steepest broad-gage line, and after considerable search and correspondence it appears that the one mentioned in reply to "L. K." is correct. The Silverton Northern Railroad, which you mention as having a seven per cent grade in one place, is a 3-feet or narrow-gage line, and does not conflict with the correctness of our answer.

MANY READERS.—The contents of any cylinder equals the area of the base multiplied by the height. The area of the base equals the diameter squared, multiplied by .7854 and divided by two. It appears that there is no positive rule for the use of the measuring-stick, and that the same can only be determined through experience.

The highest point reached by any railroad above sea level is said to be on the Oroya Railroad of Peru. The elevation is approximately 14,000 feet. The lowest below sea level is not a matter of record.

The measurement of a frog-angle is simply that of the angle between the gage-lines where they intersect. The lead is the distance from the point of the switch to the point of the frog. If the switch point were designed to give the exact theoretical lead, it would have a sharp, thin point, which would be impracticable, consequently even when a standard length is not used, it is made enough shorter to give it the necessary thickness at the end to prevent from breaking off under ordinary wear — probably at least three inches shorter than the theoretical lead. The measurement of the bend or angle for the wing-rails of frogs in this country is generally predetermined by carefully prepared tables, and it is very seldom that a calculation is necessary.

Common sense should teach us that the inside rail on any curve, although, of course, more noticeable on those of high degree, must be considerably shorter than the one on the outside. The difference is merely in the measurement of a long and a short arc of a circle as measured on the rails. It has been decided by all authorities on the action of rigidly connected wheels on curves that the outside wheel does the slipping. It has to travel over a longer distance and must necessarily slip somewhat to keep up with its competitor on the other end of the same axle.

TO THE READERS OF THE RAILROAD MAN'S MAGAZINE

Beginning with the July issue of the RAILROAD MAN'S MAGAZINE, next month, the price will be advanced to fifteen cents (15 cents) a copy, and to one dollar and fifty cents ($1.50) a year for direct subscriptions.

THIS ADVANCE NECESSARY

THIS advance is in part the result of the very much higher cost of editing, printing, and handling magazines. The cost of fiction is easily four times what it was a dozen or twenty years ago, and the cost of the other features going to make up a magazine has had fully as great an advance.

Editorial and all other salaries, including management, clerical force, and advertising staff, have well-nigh quadrupled since we first launched and pioneered the way for the ten-cent magazine—indeed, since we made this price possible to the magazine readers of America.

It will be nineteen years in October since MUNSEY'S MAGAZINE blazed the way from the

twenty-five cent and thirty-five cent prices to the low figure which it inaugurated, and which gave such enormous expansion to the circulation of magazines, bringing them at once within the means of all

OUR FIGHT FOR A POPULAR PRICE

The older readers of this magazine will remember the tremendous fight we fought to bring this popular price, of which others had dreamed, to an actual realization. Contrary to the prediction of all publishers everywhere, it worked out well, precisely as we reasoned it would, forming the foundation of the greatest magazine success that has ever been achieved.

The circulating of magazines was at that time wholly in the grasp of a huge monopoly, which said, in effect, that the ten-cent price could not and should not come. It came, however, and you have had MUNSEY'S MAGAZINE and our other publications at this price for nineteen years.

AN ENORMOUS ADVANCE IN COST

You also had many other magazines at the same figure until they were, as they claimed, compelled to advance their price to fifteen cents. We have continued the original price of ten cents much longer because of our exceptional facilities in our own news company, which we established in the inception as part of the machinery that made the ten-cent price possible. But the time has now come when

the cost of magazine making and circulating calls for an advance in the selling price of our magazines.

This demand is not wholly due to our own end of the problem. The newsdealer is an important factor in magazine publishing.

THE NEWSDEALER A FACTOR

The cost of circulating magazines has kept pace with the cost of making them. It costs the newsdealer far more for his rent and for his help, and far more, too, to live, than it did a dozen or twenty years ago. So it has come about that the profit on handling a monthly magazine at ten cents does not satisfy him.

Under such conditions it naturally follows that the newsdealer favors the sale of the magazine on which he makes the larger profit, and discourages the sale of the magazine yielding him the smaller profit. This state of things has worked out greatly to our disadvantage.

From the newsdealer's point of view he is perfectly right, and has all the while been right, on the assumption that he could sell as many magazines at fifteen cents as at ten. From the publisher's point of view, however, the sale at ten cents would naturally be much greater than at a higher price, and the greater sale at a smaller profit would in the aggregate net as much, or more, to the news-

dealer as he would get from the sale of the higher priced magazine.

But conditions have so changed with both publisher and newsdealer that the higher price, considered every way, is inevitable. Moreover, the improvements to be made in the RAILROAD MAN'S MAGAZINE would in themselves, if for no other reason, fully justify the advance in price.

TO BE FULLY AND HANDSOMELY ILLUSTRATED

Beginning next month, the July issue, the RAILROAD MAN'S MAGAZINE will be so greatly improved that you will hardly recognize it. It will be printed on high-grade paper and most generously illustrated. Its scope will be broadened, and it will cover many subjects that hitherto it has never touched upon. It will be in every respect a thoroughly high-grade magazine, well freighted with fiction, special articles, biography, anecdote, and anything that will go to round out a thoroughly readable publication.

IMPORTANT—Existing subscriptions will be carried out for their full time, and new yearly subscriptions received prior to June 8, the date when the new price goes into effect, will be accepted at the old rate of one dollar.

FRANK A. MUNSEY.

New York, April 16, 1912.

Bea Berkeley's Butterfly.

BY HOLLY EDWARDS.

The Mysterious Death in New York of a Beautiful Young Girl Is Kept from the Police.

CHAPTER I.

The Letter at the Club.

"HELLO, Jimmie!"

"Hail to the wanderer!"

"Welcome home!"

"Thought you were lost for keeps, Jim!"

These and other exclamations of greeting and good fellowship arose from all parts of the club library, as James Haven Heyward entered the room and made his way over to an unoccupied desk in a corner near the window.

Putting down the handful of letters just given him by the clerk, he turned and bowed his acknowledgment to the welcome of his clubmates.

"Good morning, gentlemen all!" he called cheerily. "No, Carl"—to a stout, bald-headed man, who sat half buried in the depths of an easy chair—"I have been neither lost, strayed, nor stolen; in fact, I have been stealing a few halcyon days far from the madding crowd."

"Where have you been all this time?" some one wanted to know.

"On the briny deep, having the time of my life."

He pulled a chair from the desk, slid into it, and addressed the room at large

"Now, boys, no more questions, if you please, until I have assimilated this stack of mail. After that duty is performed, I shall be pleased to give you my attention and any information you may desire—provided I feel like telling you what you want to know. In other words," he added lightly, "lemmebe."

He turned to the pile of letters before him and began rapidly to sort them over. It was evident that he was looking for one in particular, and that the rest held small interest for him.

Suddenly he gave a smothered exclamation of satisfaction and held up a square, white envelope, the flap of which bore a dainty monogram of the letters "B. B.," cunningly entwined to simulate a butterfly with outspread wings.

The rest of his correspondence he pushed carelessly aside.

"Our Jimmie hath a communication from Miss Beatrice Berkeley—'the beautiful Miss Berkeley of Savannah,'" the man in the easy chair observed quietly. "What does she say, Jimmie?"

"None of your business," returned Heyward smilingly. Turning his back upon the inquisitive one, he proceeded to read his letter.

It was headed "Kalb's Sanatorium," and was written in a small, feminine hand.

DEAR JIMMIE:

By this time your cruise surely ought to be over, and I am sending this to the club on the chance that you may drop in there one of these fine days.

I've been in New York a little over a month, but have not had a chance to write you before, because I've been ill and under treatment by Dr. Kalb at the above address. I am nearly recovered now, and shall leave in a few days.

Should you be in town do come and see me here. I'm quite well enough to receive visitors, but the doctor does not want me to exert myself too much for a while.

And if you are not in town and don't get this letter until I have left here, you will find

me, as usual, at the Bismarck, where I shall be more than glad to see you.

Always sincerely yours,

BEATRICE.

Heyward read the letter twice, then turned the envelope over and looked at the post-mark. The stamp recorded the date of six days previous.

"She's probably at the Bismarck now," he said to himself. "I'll just call up there and see."

Gathering up the rest of his letters, he skimmed quickly through them, consigning most to the basket and stuffing the remainder in his pocket for later attention. Then he went out into the office and called up the Bismarck hotel.

"No, Mr. Heyward, Miss Berkeley is not here," the clerk informed him. "We are holding her apartments for her, and expect her any day—any minute, almost. Is there any message you would like to leave?"

No; Heyward did not want to leave any other message except that he had called up, and so he told the clerk. Then forgetting all about his promise to his friends and acquaintances in the library, he hurried out the door and up the avenue. If Beatrice were not at the Bismarck she must be at the sanatorium; and thither he directed his steps.

He had not seen Beatrice Berkeley for months, and he anathematized the unhappy chance which had led him to remain away from the city while she was in town. Thirty-one full days, many of which might have been spent with her.

The past winter had been a very gay one. He had gone everywhere and seen every one, yet all the time he had been conscious of a great loneliness—nor did he have far to seek for its cause. Beatrice Berkeley was in Egypt. All the pretty, attractive women he knew could not make up for the absence of her, far more attractive than all the rest

True, she wrote to him more or less frequently bright, chatty letters that assured him he was often in her thoughts. But "often" was not sufficient. He wanted the assurance of "always"; and that assurance he was determined to have if she were able to give it to him.

In all his twenty-eight years he hadn't known a serious love-affair—until he met Beatrice Berkeley. The beautiful Southern girl had charmed him from the first moment he saw her; she appeared to like him, to take pleasure in his company, and a warm friendship had sprung up between them, which, on his part had grown speedily into love.

Whether or not she cared for him in the same way he did not know. Her attitude toward him had been so frank, so apparently devoid of all sentiment, that he could scarcely permit himself to believe she entertained more than a friendly regard for him. And yet—sometimes he was not sure, he thought she might be beginning to care for him in the way he wished her to care.

An orphan, wonderfully beautiful, of excellent birth, possessing a large fortune, she had some years before come to New York from her home in the South. Society had taken her up and accorded her the position she was so well fitted to occupy.

Heyward was not interested in her money—he had plenty of his own—nor did he care whether her parents had been princes or street-sweepers. All that mattered was she herself.

To win her for his wife was what he wanted most in all the world.

He knew that his own wealth and position would not count with her. If she loved him she would marry him, and not otherwise. His friends were hers; the houses where he was made welcome were open to her as well.

He could not understand how he had ever permitted her to go away from him for so long without asking the momentous question; but he had hesitated to put his fate to the test. Suppose she did not care for him? It would probably put a stop to their friendship or give rise to constraint where before there had been perfect harmony and accord

So he had waited until it was too late, and she had started on her trip. But now—there should be no more hesitation, no more waiting.

Before the sun set that night he meant to know.

CHAPTER II.

Number Seventy-Seven.

TURNING out of Fifth Avenue, Heyward strolled slowly westward, scanning the numbers on the houses.

"Sixty-five—sixty-seven—now what *is* that number?"

He took the letter from his pocket and

skimmed over its contents, a smile lighting up his clear-cut face.

"Seventy-seven—or is it seventy-nine? It looks as much like one as the other," he mused as he closely examined the address on the missive.

"Well," he concluded, half aloud, "it can't be both, so I'll just—"

"Jimmie! Jimmie Heyward!"

"Eh? Yes? What?" He faced about.

For half a block in either direction the street was empty, yet he could have sworn that the voice which had broken in upon his soliloquy belonged to Mrs. Peter Van der Poel—*the* Mrs. Peter Van der Poel—but Mrs. Peter, he had been told, was at her summer camp in the Adirondacks.

"Jimmie! Here—in the house! This way!"

This time the voice was unmistakable. Pausing only long enough to assure himself that it came from a window of the large, old-fashioned brick dwelling in front of which he stood, Heyward ran up the steps.

The door was slightly open. Entering he found himself in a lofty, marble-paved hall. To his right an arched doorway revealed a handsomely but conventionally furnished drawing-room. A mahogany roll-top desk and a small steel safe indicated that the room had of late been used for business purposes.

Closing the front door behind him he advanced a few steps into the interior of the hall.

There was a rush of feet on the stairs, a rustle of feminine garments, and Heyward suddenly found himself surrounded by the weirdest company of freaks that he had ever seen!

They were all talking at once in piercing, high-pitched tones; yet, singularly enough, while most of them seemed to know him, some of them even addressing him by his first name, he failed to recognize a single one of the excited, incoherent, clamoring throng!

Their garments were extraordinary enough, exhibiting almost every known variety of comfort from *peignoir* to bath-gown. One wore a flowered quilt artistically draped about her shoulders. But it was their faces that bewildered Heyward and prevented him from identifying any of them.

Some had their features hidden behind what appeared to be plaster casts. Others presented countenances disguised with sheets of surgeon's plaster, held in place by strips of some adhesive material. Others wore masks of kid or gauze, and others were grotesquely smeared with unguents of various brilliant hues.

One, whose face was a vivid blue, the horror of which was accentuated by her bright red lips and sparkling eyes, hurled herself upon him and hoarsely proclaimed him as her deliverer.

Grasping her by the wrists and holding her at arm's length, Heyward regarded her with dismay.

"For Heaven's sake," he gasped, "who are you? And what are you all talking about? I can't understand a word! If one at a time would—"

"You don't mean to say that you don't know me, Jimmie?" wailed the monstrosity, beginning to sob hysterically.

"Well, Gladys, if you will look in the mirror you won't know yourself," said another voice; and its owner, a tall, portly woman, her cheeks, forehead, nose, and chin swathed in bandages, crisscrossing in intricate patterns, pushed her way up to him.

"It's not surprising that Jimmie doesn't recognize you. Do you know *me*, Jimmie?"

"I—I know the voice," Heyward stammered. "What has happened to you, Mrs. Van der Poel—if it *is* you—what has happened to all of you? What are you doing here? I thought you were in camp!"

"Not in camp; in despair," declared the voice of Mrs. Peter. "The young lady with the indigo complexion, whose manifestations of grateful affection you are so coldly repulsing is your cousin, Gladys Schuyler."

"But I don't understand," said the puzzled man, looking from one to the other. "What are you all fixed up this way for? Is it a joke or a masquerade?"

"Oh, it's a joke—on us—and a sorry one!" exclaimed Mrs. Van der Poel grimly. "To think that a sham beauty doctor and his artful decoy—"

"Beauty doctor?" Heyward repeated wonderingly. Then the humor of the situation dawned on him and he began to laugh.

"Don't, Jimmie, it's too cruel," said Mrs. Van der Poel, her own usually lively sense of humor kept in check by a glimpse of her reflection in the glass. "I dare say we do look funny, but we don't feel so.

"Now what I want you to do is to get

enough taxicabs to take us all home; and veils—heavy motor veils—to hide our terrible faces. While you're out we'll go upstairs and put on our street clothes."

"But won't you explain?" persisted Heyward. "I just got in from the yacht cruise this morning and found a letter at my club from Beatrice Berkeley—you all know her, of course—telling me she was at Dr. Kalb's Sanatorium, and giving this number; but I can't seem to rec—why, what's the matter? Have I said anything unusual?"

"Please do not mention that woman's name in my presence, Jimmie, if you value my friendship," said Mrs. Van der Poel sternly. "The owner has forfeited all claim to the title of lady."

"The hateful cat!" shrilled a voice from the background. "If she hasn't already left New York for good the city will soon be too hot to hold her!"

"New York too hot to hold Miss Berkeley—forfeited all claim to—what do you mean, Mrs. Van der Poel?" demanded Heyward, sobering instantly.

"I mean this," replied the lady addressed. "About a month ago I met the 'beautiful Miss Berkeley'"—the tabooed name came glibly enough from her indignant lips—"on Fifth Avenue; but she was a beauty no longer. She had, so she said, recently made a visit to Egypt, where, according to her account, she had been taken ill with some terrible fever which had utterly ruined that wonderful rose-tint complexion which was her principal claim to distinction.

"It seemed to be injured permanently, to all appearances. Her face was wrinkled and sallow, and she looked a wreck. I pitied her and was as kind to her as I could possibly be—the little wretch!

"For about a fortnight she was in town. She was waiting, she said, for her chaperon, a married cousin, to recover from a slight operation. And then, a little more than two weeks ago, she confided to me that she was coming here to be treated by Dr. Kalb, the great complexion specialist, who had promised that her lost beauty should be completely restored.

"Last Monday she appeared again, with that marvelous rose-leaf color as beautiful as ever. I saw her for only a few minutes; but I made up my mind that if Kalb could do such wonders for her skin he could certainly improve mine.

"I told Gladys, and Gladys told—but never mind who told who. Well, I—went to the Adirondacks. The rest"—she waved her hand at her motley companions—"went to various other places. Needless to say, we paid Kalb in advance. His fee was enormous; but then, I had seen Miss Berkeley.

"Of course we all believe now that the 'doctoring' was done before she came here—that she had made up for the part she intended to play. We have been here three days. This morning we woke up and found no one to wait on us. There were no nurses, no doctor, no servants in the house, nor was there any food. We have had nothing to eat since last night. The telephone connection had been cut off, and there was no way in which we could summon help without publishing our plight to an unfeeling populace."

"And last night," broke in Miss Schuyler, in tones as blue as her complexion, "about midnight I got up and went to the window for some fresh air. The pain of what the doctor did to my face, before he put this awful stuff on it, kept me awake. I heard voices and then I saw Dr. Kalb and Miss Berkeley come out of the front door, enter a waiting cab with a trunk on it and drive away!"

"Gladys!" Jimmie Heyward's voice thrilled with the horror the girl's words awakened in him. "You must have been mistaken. It couldn't have been Miss Berkeley."

"Do you suppose I don't know her?" the girl asked scornfully. "I saw her with my own eyes, heard her speak, and in her hat was the emerald butterfly! Are there two such girls, two such jewels, in the world?"

"Nevertheless, you must have been mistaken," Heyward said obstinately. "It was dark, you know."

"Dark? Directly under the electric light? I tell you, I saw her plainly. Besides, she had on the same gown she wore the day she told me she was coming h-he—here," and Miss Schuyler wept afresh

"Well," said Heyward dubiously, "there is some miserable mistake to be corrected. But first I must get you all to your homes. I'll buy the veils and call the cabs, and then I'll notify the police and a private detective agency, and we'll soon ferret—"

"Police? Detectives?" cried Mrs. Van der Poel excitedly. "Do you want to ruin

us, Jim Heyward? Have you no sense? This would look well in the newspapers, wouldn't it? No, thank you, Jimmie. Before you leave this house you must give me your word of honor that you will never tell what you have seen here to-day to a single living soul. I'd rather lose every inch of skin I possess and three times the money I paid than have this get into the papers."

"True," said Heyward hastily, as he reflected on the figure he himself would be made to cut if the story ever leaked out. "It—it would be awkward." And he readily gave the required promise.

Then he hurried off on his double errand. He wanted to get it done as quickly as possible, so that he could set about solving the mystery in regard to Beatrice Berkeley. On her account alone secrecy was imperative.

He alone must undertake the task. It was one for which he felt himself but poorly equipped. He knew little about detectives, and less about their methods; but he had that to spur him on which would not permit him to doubt his ultimate success.

An hour later, after seeing the last disappointed seeker after beauty into a motor cab, he stood alone in the deserted house.

Beyond a few jars of cosmetics, some rolls of bandages, several sheets of surgeon's plaster, and an electrical instrument there was nothing in the building that was calculated to throw any light upon the past activities of Dr. Kalb. The safe in the front room stood open and empty.

Heyward satisfied himself that there was nothing in it or the desk which could give him the slightest clue to the man's present plans or whereabouts. Then he left the place, leaving the front door on the latch, intending to return and make a closer search if the inquiries he was about to make outside proved fruitless.

His heart was very heavy as he walked down the street in the warm sunshine of that late spring day. The story which Mrs. Van der Poel had told him, the sight which Gladys Schuyler declared she had seen under the electric lamp the night before, the harsh words that had been Miss Berkeley's portion from every one of the angry women who had been caught in the doctor's net, weighed heavily upon him.

Not that he believed the girl guilty—possibly she might have been made the unconscious tool of an unscrupulous scoundrel. He must find her at once and have her explain, that he might set her right with Mrs. Van der Poel and the others.

"Hello, Jimsey! Back from your cruise?" The greeting suddenly awakened him from his reverie.

"You, Tom? Well met!" he exclaimed. "Are you in a hurry? Where are you going?"

"Nowhere in particular at this moment. I'm taking a week off. Ransom is looking after my patients and I'm footloose. Thought of putting in the time at Baltusrol. Why? What's the matter with you? You look as if a little golf would—"

"Tom, will you do something for me?" Heyward asked eagerly. It was providential that Tom Bartlett should be walking down the street at that particular hour of the day.

Friends from childhood, mates at college, comrades even when Bartlett's medical studies took him to Europe after the conclusion of his regular course at the university, the two men were like brothers and as different in nature as brothers often are.

Like many brothers, too, they held diametrically opposite views on most subjects, and were on such intimate terms that they could quarrel violently over their opinions—and often did—without disturbing the real regard and affection that each felt for the other.

"Do anything for you, Jimmie," Bartlett replied to Heyward's question. "What is it?"

What was it? Heyward paused, perplexed. Confound his pledge of secrecy!

"I can't explain," he said at length. "You'll have to trust me and go it blind for the present. There's been trouble at number seventy-seven—Kalb, the beauty-doctor's. Friends of mine—women, whom I must protect, are involved. The doctor has disappeared; the house is empty.

"I'm on my way to Ned Cameron's real-estate office. He can tell me who owns the house, perhaps who the agent is. Then I can follow up the information and maybe get on the scoundrel's track.

"In the mean time I'm going to ask you to go up to number seventy-seven and wait until I get back. I sha'n't be long, but if anybody or anything turns up there while I'm away I want to know it. The door opens on the latch."

"I'm your man," agreed Bartlett; and they separated.

About an hour later Heyward again climbed the steps of number seventy-seven. His quest had been unsatisfactory, inasmuch as he had been able to learn little that was definite about the tenant. Cameron, however, knew the property and had given him the address of the agent.

At the agent's office he was informed that the house had been let furnished to Dr. Kalb, and the rent paid up to the end of the current month. The doctor had not announced his intention of giving it up. Did Mr. Heyward desire to lease the property himself? No? Ah! The agent regretted that he was unable to give any further information in regard to the property or its tenant.

There was nothing to do but return to Tom Bartlett and make another investigation at the house, so thither Heyward went with all speed.

"That you, Jim?" Bartlett's eager voice came through the keyhole of the locked door.

"Yes; let me in, will you? Hello!"—as the door swung open—"what have you done to your hand?" he asked, eying the bandage that Bartlett was skilfully adjusting.

"Nothing; it was done for me," replied Bartlett cryptically. "I came up the steps and entered the house," he continued, "and I guess I must have been pretty quiet about it. As I stood in the hall I saw a woman kneeling in front of that safe. Then I stepped into the room, just as she pushed a spring and a little door flew open at the back. She took something out of it and I thought it was time to interfere, so I coughed. She jumped up and faced me, holding one hand behind her.

"I asked her what she was doing here, and she asked me what I was doing here. I told her that was my business, and she retorted in kind. Then she gave me a haughty stare and started to go out. I stepped in front of her as she tried to pass by me, and she jumped back and deliberately lunged at me with her hat-pin!"

"A hat-pin?"

"Yes—a rather extraordinary one. Its head was a jeweled butterfly with a green body and red wings. If the gems were real it must have been worth a fortune, for the center stone was larger than any emerald I ever saw."

"The emerald butterfly!" breathed Heyward.

"What?"

"Nothing; never mind. Go on with your story."

"Well, I stopped the pin with my hand, as you see. It went in pretty deep, and gave her the chance she wanted to slip by me. I didn't follow her, because you told me there was to be no hue and cry. She ran to an automobile that was waiting on the other side of the street, jumped in and was out of sight around the corner in a minute. I tried to get the number of the machine, but it was too far away for me to make it out."

"What did the woman look like?" Heyward's voice sounded harsh.

"She was a good-looker—lots of style and all that," Bartlett answered, glancing curiously at his friend. "Had on a tailored suit of some light-colored stuff, and a flower hat—you know, one of those things all made of some kind of blossoms. I couldn't see her features very well because she was closely veiled; but she had wavy, coppery hair, and she spoke with one of those low, sweet accents. Never raised her voice even when she attacked me."

"I wonder if you'll ever hear it again?" Heyward said musingly. "Come on!" he added abruptly. "There's nothing more for us to do here." He turned away, then faced Bartlett again.

"Good Heavens, man!" he exclaimed. "I never meant to let you in for a scrape like this. Why didn't I come here and send you to Cameron's? If I could have foreseen—"

"How could you, possibly?" Bartlett broke in. "Don't worry about me. I'm not fatally injured. In fact, I rather like the whole thing—I'm interested."

They left the house and turned toward Fifth Avenue.

"Where now?" Bartlett wanted to know

"To the Bismarck to see if Beatrice Berkeley is still in town," said Heyward, and again his friend noticed the oddly strained note in his voice. "I particularly want you to meet her if she is."

The doctor wondered why, but asked no questions.

"Miss Berkeley left here between two and three weeks ago, Mr. Heyward, as I told you over the telephone," said the clerk of the hotel. "We are expecting her to return any day, however, and are holding her mail at her instruction. No, she has

not been here at all, to my knowledge—certainly, if she had she would have asked for her letters."

Forced to be satisfied with this unsatisfactory information, Heyward led the way to his bachelor quarters, Bartlett willingly accompanying him. The young physician was troubled about his friend, who plainly had something on his mind.

CHAPTER III.

The Blank Wall of Circumstance.

"TOM," declared Heyward, as he closed the door of his apartment and flung his hat upon a chair, "I gave my word that I would not tell the names of those women who were at number seventy-seven to a living soul. But I'm going to break my word and tell you.

"No, not on your account," he added, as Bartlett made an inquiring gesture, "on my own—and another's. I'm up against something I don't understand, and I need your help."

Briefly as possible he related what had taken place since Mrs. Van der Poel had called to him from the window of number seventy-seven.

"Now," he concluded, "do you see the position in which Miss Berkeley is placed? Those women were in an ugly temper, of course, not at all in the frame of mind to form unbiased opinions about anything, especially if that anything happened to be a woman more beautiful than any one of them, whom they believed to be responsible for their own suffering, swindling, and humiliation.

"But they were ladies, all of them, gentle and well-bred. Most of them I know personally, some of them intimately. What they said, they believed; and they were all agreed on what they believed about Miss Berkeley. They are wrong, of course, but they believe it still.

"It is a terrible thing for an innocent girl to be judged by a jury of irate women. They think they are going to tell no one, to say nothing about their disagreeable experience. But you know women well enough to realize that it is impossible. Even if they can keep their secret they will ruin the girl socially with veiled innuendos.

"And even supposing that they did nothing overt, they are all women of influence. To be cut, ignored, discredited, by a dozen of the most prominent women in town would give rise to all sorts of evil conjecture in regard to the character of Beatrice Berkeley. And, Tom, I know she is innocent."

"How do you know it?" inquired Bartlett.

Heyward threw him a quick glance.

"I know it because I know her," he answered. "I have yet to learn anything about her that is not wholly to her credit. I expected to see her to-day and tell her that I love her, Tom. I mean to ask her to be my wife; but for her sake—not for my own, you understand—I must first clear her of this hideous, this impossible suspicion.

"I must do this in the face of circumstantial evidence that piles up in my path whichever way I turn. A word from Miss Berkeley would, of course, be sufficient to overthrow the entire fabric; but that word I cannot get, and the fact that I cannot locate her serves only to strengthen the case against her."

"Just one moment," interrupted Bartlett. "At present you have these facts—or alleged facts before you. As I understand what you have told me, Beatrice Berkeley, a young Southern woman, popular in the social set to which you belong, is accused of acting as a decoy for a fake beauty doctor. She is supposed to have made false representations to a number of wealthy women on the strength of which they went to the doctor's sanatorium for treatment, paying him large sums of money in advance.

"Then, at the psychological moment, he and the young lady ran away together in the middle of the night, taking with them the money they had secured from their victims. I am right so far?"

Heyward nodded gloomily.

"Very well. You, personally, know that Miss Berkeley was in reality at the sanatorium, for she wrote you, giving that as her address. The word of a woman like Mrs. Peter Van der Poel is not to be doubted, nor is that of your cousin, Miss Schuyler.

"They assert that Miss Berkeley was there, apparently under treatment like the rest of them, and that last night she disappeared with the doctor. Miss Schuyler actually saw this. Further, Miss Berkeley has not been at her hotel for some time,

nor has she left any forwarding address for her mail.

"It would seem, as you say, that all the known facts in the case, in addition to all the purely circumstantial evidence, dovetail exactly. Yet, from your private knowledge of Miss Berkeley's character, you declare that she is innocent. There may be, as you suggest and insist, some mistake; but, Jimmie, you'll have a hard time proving it.

"Those women will take a lot of convincing, and Miss Berkeley's mere word that she had nothing to do with their experiences with the doctor would be quite insufficient to overbalance the evidence of their own senses.

"In my opinion, if you hope to save her from complete social ostracism and disgrace, you'd better enlist the services of a skilled detective, and—"

"But I can't!" cried Heyward. "I've given my word not to call in the assistance of either police or detectives! More than that, I even promised to tell no one at all! I make an exception in your case because you are the only man who can help me. I've got to save that girl! Can I count on you, Tom?"

Bartlett frowned slightly.

"Jimmie," he said earnestly, "I am ready to do anything in the world I can to help you."

If Heyward noticed the slight emphasis placed on the last word he did not show it by work or action, but accepted the offer frankly and gratefully.

The two men spent the evening in the effort to devise some systematic plan of pursuing their investigations, but found themselves very much at sea. Heyward got down a book of detective stories hoping to gain some inspiration from the methods of the author.

The volume only increased his perplexity, emphasized his incapacity. None of the problems solved in the least resembled the one in which he was so deeply interested

"Put the book up," said Bartlett, seeing the worried, disgusted look on his friend's face as he impatiently turned the pages. "Hang it all, man, that's only fiction. The author made up the plots, knew each solution before he put the detective to work, and took care that he always noted the significant thing, the tell-tale mud-splash, the frayed cuff, the torn buttonhole, the cigarette ash, and what not, and always translated their meaning correctly. It's a trick, a device, however ingenious. Real detectives work on absolutely different lines."

"I know," replied Heyward, hurling the volume into a corner, "but they are familiar with the ways and lives of the criminal classes, know most of them by sight, are acquainted with many of them, with their haunts, employ them as stool-pigeons, and besides—"

"Often fail when they are confronted by an unusual situation, a crime or a mystery outside of their habitual experience," Bartlett interrupted him.

"They are, as a class, men of quite ordinary intelligence, and I am confident that two men like you and me, well informed, widely traveled, college trained, accustomed to mingle and hold our own with men of all classes, by applying our minds and energies to an actual problem in which human beings are the factors, can solve it quite as well as the police sleuth or even the keen-eyed creation of the novelist.

"But to do that we must start with clear minds and rested brains. A good night's sleep is what we most need at present. As your physician I prescribe it and am ready to take my own medicine. Something will surely turn up to put us on the right track."

But long after the deep, regular breathing of the physician told Heyward that his friend was asleep, the young man lay awake, tossing restlessly, turning over in his mind the perplexing and distressing events of the day.

Beatrice Berkeley, the girl he loved, was involved in this inexplicable tangle, and he, with Bartlett's aid, must clear up the mystery and set her right with the world. But how was he to go about it?

He must observe the utmost caution for her sake as well as for his promise to Mrs. Van der Poel. Should the story become known the resulting publicity and notoriety would work incalculable harm.

Therefore he must grope in the dark, using such facts as he possessed as clues to lead him to others which would aid in solving the enigma.

That Beatrice had at some time been at Kalb's sanatorium was certain; but was it she who had left secretly at midnight with the doctor? If so, why? What had been her object? Did she go willingly, or had she been coerced?

And if not, where was she now? Who

had impersonated her, and with what object? It was all hopelessly confusing.

For hours he cudgeled his brain, trying to hit upon some theory which would at least give him a working hypothesis, and finally fell into a troubled sleep, hoping that Bartlett's prediction would be fulfilled, and that something would turn up to set them upon the right track.

CHAPTER IV.

The Woman in the Morgue.

BARTLETT was leisurely dressing the next morning, when Heyward's voice came to him in horror-stricken tones:

"Tom! Tom! Listen to this!"

Bartlett flung open his bedroom door and beheld his friend, white at the lips, holding a newspaper in his shaking hands, while he read in a trembling voice:

> The body of a handsomely dressed woman was found caught by the skirt on a broken plank of the sheathing of the Barclay Street ferry-slip after one o'clock this morning. It was first noticed by Dennis Farley, a deckhand on the tugboat Lackawaxen.
>
> The boat was backed slowly out, the body lifted aboard and taken into the ferry-house. An ambulance from the Hudson Street Hospital responded to an emergency call, but the doctor stated that life had been extinct for some time.
>
> The body was that of a woman about twenty-five years old, clad in a light-colored, well-tailored costume, bearing the mark of a Paris dressmaker. The woman's face was badly disfigured, as if struck by a heavy blow with a blunt instrument, or by the wheel of one of the ferry-boats.
>
> An additional element of mystery was imparted to the case by the discovery that a jeweled ornament, in the shape of a butterfly, which appeared to be fastened to the left breast of the woman's waist, was in reality the head of a long hat-pin, which had been driven through her heart. There were no other jewels or marks on the clothing to lead to the identification of the body, which was taken to the morgue. The police are inclined to believe the case one of suicide.

The two men stood looking at each other for a moment. Then Heyward, without a word, without a glance at the breakfast on the table, picked up his hat and started for the door.

"Where are you going?" asked Bartlett, slipping into his coat. "To the morgue?"

"Yes! Come along—if you wish!"

"Morning, doctor, looking for any one? Not a friend, I hope," said the attendant in the house of violent deaths.

He had known Bartlett as an intern at Bellevue.

"Not of mine, Kelly, thank you. The gentleman with me wishes to see the body that was found in the ferry-slip last night, on the chance that—"

"There's not much he could tell by looking at her," Kelly observed warningly. "She was smashed that awful, sir. Of course the figger and hair would be something, but 'tis the clothes'd be the best guide, I'm thinkin'. Will ye be lookin' at them first?"

Heyward shook his head and started to speak, but Bartlett shut him off.

"Yes; let us see them, by all means," he declared, "and the jeweled hat-pin. You want to look at that, don't you?" he asked of his companion.

"Yes, yes," Heyward assented. "I did not know—"

He looked about in a dazed way, surprised not to find himself confronted by the gruesome row of sheeted bodies with which his imagination had peopled the interior of that place of horrors.

"Steady, man," cautioned Bartlett.

Kelly was displaying the garments taken from the dead woman, the slender, scintillant weapon that had pierced her heart. The clothing meant nothing to Heyward—but the jewel!

He reeled and clutched at Bartlett for support.

It was—he could not be mistaken—Beatrice Berkeley's emerald butterfly!

The gleaming body was cut from a single, flawless emerald; the widespread wings were formed of smaller emeralds and diamonds, woven together in a cunning and intricate design; the antennæ were of platinum, tipped with brilliants.

A beam of sunlight fell upon it as it lay in the case, and sent out a thousand flashing, prismatic rays.

"Recognize it?" asked Kelly, looking curiously at Heyward.

The latter hesitated for an instant. Then said:

"The—the body," he managed to say, controlling himself by a tremendous effort of his will. "Where is it?"

Kelly led the way into a wide corridor, the walls of which, with their tiers of ob-

long doors, reminded Heyward of the interior of a huge receiving vault.

"Courage!" whispered Bartlett. He grasped his friend by the arm as the attendant swung open one of the ugly iron doors and rolled out a deep, coffinlike pine box. "Courage, old man," and there was a note of tender pity in his voice. "That hat, that suit, that waist in there, were those worn by the woman who—"

He finished his sentence by holding up his bandaged hand.

"Do you want to look?" asked Kelly, addressing Heyward. "You can't tell much, but perhaps—"

One hurried glance was all that the shaken man could stand. Sick and dizzy, he staggered back.

"Come," he said to Bartlett, as he started uncertainly to the door.

But the physician was lingering to make a closer examination.

"Anybody you know?" asked Kelly, as Heyward waited.

Heyward shuddered.

"I—I cannot identify her," he answered. "Come, Tom."

There was an expression of amazement and distress on the physician's face as he turned from his scrutiny of the dead woman and hurried to the door.

"Poor little girl," murmured Heyward brokenly. "What an awful experience she must have undergone to drive her to so desperate an act!"

"Awful indeed," assented Bartlett. They took their seats in the cab and the chauffeur threw on the power.

"I was right not to identify her, was I not?" Heyward asked anxiously, as they sped along. "I wanted to think — what was best to be done—how to cover up the scandal, to clear her from reproach. Not that I really doubted—"

"You were more than right," Bartlett assured him. "And you must never, never doubt."

He let his hand fall lightly on Heyward's shoulder. "Poor old Jimmie! It hits hard, I know, but, don't you see, there is nothing more for you to do.

"Whatever is to be done now must be done by her family. You have not seen Miss Berkeley for months; you were not even engaged to her. You have no excuse. Better go off on another cruise for a month or so, and—not forget it, but try to live down the bitterness and the sting. I will go with you. I can arrange it all right, I know. Ransom will be glad—"

"Nothing for me to do?" Heyward cried in shocked surprise. "Nothing to do, when that villain Kalb—"

"What about Kalb?" Bartlett broke in. "What has he to do—"

"Everything! Can't you see! Oh, if you could have heard those angry, spiteful women you'd know fast enough. He must have got her in his power; hypnotized her —I don't know what. He is responsible for what she did. I know it."

"Probably he is," said Bartlett thoughtfully, "but what have you to do with Kalb? If you attempt to run him to earth you will stir up more scandal about Miss Berkeley. Better keep away from him."

"Keep away from him? He'd better keep away from me! He'll find what I've got to do with him, if I ever catch him. Driver—the Bismarck!"

"Great Heavens, Jim, what for?" cried Bartlett in consternation.

"What for? To find out everything I want to know. It will drive me crazy if I don't"

"No!" commanded Bartlett. "I won't permit it. It would be the worst thing that you could do."

Heyward looked at him blankly.

"Why?" he demanded.

"You — you're in no mental condition to undertake such a task at present. Wait. Take a short cruise. Give your emotions a chance to subside. You may do something rash, something that you will regret."

Heyward flung him an angry glance.

"Here we are," he exclaimed, and darted into the office of the hotel.

"Good morning, Mr. Heyward. Miss Berkeley returned about fifteen minutes ago," was the greeting of the clerk before Heyward had a chance to speak. "I'll send your name right up."

The physician was the first to arouse himself to action.

"Come," he said. "Come away. Don't try to see her to-day."

Seizing his friend by the arm, he tried to lead him toward the door.

Heyward broke away with an indignant gesture, just as the clerk informed him that Miss Berkeley had telephoned that she would see him in the reception-room.

"I don't understand you, Tom. But if you think I am going away without seeing Beatrice you're crazy!" He turned and

entered the reception-room. Bartlett, after a moment's hesitation, followed.

Fortunately no one else was present, and the two men were able, in a measure, to recover their self-control by the time the real Miss Berkeley entered blithely.

"Jimmie!" she exclaimed, coming forward, the rich color mounting to her cheeks, "I'm so glad to see you. I've just got in—and here you are. You are a dear to come so soon!"

Heyward bent over her hand and presented his companion with as much composure as he could muster.

Bartlett, too, bowed over her hand, regarding it curiously. She slipped it away from his light grasp with a half-embarrassed laugh.

"I'm in such a pother, Jimmie, about my cousin, Flavia Graham, who came from Europe with me!" she said, sitting down in one of the deep chairs. "I expected to find her here to meet me, but they tell me she hasn't appeared here at all. What shall I do? I'm so afraid something has happened to her."

Heyward did not immediately answer. He was looking at her with a puzzled expression. Could he believe his eyes? That costume—hat, skirt, blouse—everything—was identical with the one he had just—the one Tom had said—

But Beatrice was here—and alive. Now everything would be cleared up. He forgot that she had asked him a question, forgot that she might not care to discuss her affairs before a stranger.

His one idea was to get to the bottom of the mystery immediately, and set about undoing the mischief.

"Why were you in such a hurry to get away from Dr. Kalb's yesterday when Bartlett found you there?" he asked suddenly.

"Dr. Kalb's? I wasn't near there yesterday. I wasn't near the place! I just got in from Chicago."

"And you didn't—er—jab him with a hat-pin?"

"*What?*" cried the girl. Then she broke into a rippling laugh. "What's the joke, Jimmie? Have I a reputation for jabbing people with hat-pins?"

"You see, Tom!" Heyward turned triumphantly to face his friend. "I knew you were mistaken. Every one was mistaken. But—"

"No," said Bartlett slowly, his eyes fixed on Miss Berkeley. "I am not mistaken. This is the woman."

CHAPTER V.

A Sudden Journey.

"TOM!"

"Dr. Bartlett!"

"Wait a moment," Bartlett went on. "If Miss Berkeley did not go to Kalb's yesterday, if she did not see me there, if she did not resist my effort to detain her until your return, if she did not stab my hand with a jeweled hat-pin, *who did?* Not the woman we have just seen, though she had the same figure, the same hair, and was gowned like Miss Berkeley, for she did not have the same hands! Had she the same voice?"

"Yes!" The answer came from Miss Berkeley herself. "My cousin, Flavia. Where is she?"

"Yes?" Bartlett's voice was hard as iron. "So the woman who lies dead to-day with your jeweled butterfly hat-pin through her heart is your cousin?"

"My butterfly? In a dead woman's heart? Not Flavia's? Impossible! What does it all mean? I left my butterfly in the safe at Dr. Kalb's hospital!"

The girl staggered back.

"From where you took it yesterday, making a preliminary demonstration of your skill in using it as a weapon of offense," remarked Bartlett dryly. "Jimmie, I've tried my best to save you from this, but you wouldn't listen to me. Shall I make a complaint against this woman—or will you?"

"Complaint?" gasped the girl.

"Great Heavens, Tom!" cried Heyward, "you don't intend to charge Miss Berkeley with assault for that scratch on your hand?"

"Nothing so slight, believe me."

"Then what—" Heyward stopped, appalled. "Tom," he protested, "you don't mean to imply that Miss Berkeley— Why, how could that poor suicide in the morgue—"

"Suicide?" Bartlett shook his head solemnly. "That will do for the police to believe—if they do believe it. No woman could stab herself with that slender pin and send it home with sufficient force to penetrate the heart and drive it up to its head. A man could not do it. It is not possible. That woman was not a suicide. She was murdered!"

"Suppose that she was, then? How does that affect Miss Berkeley?" flashed out Heyward, moving protectingly to her side. "She has told you that she was in Chicago yesterday — on the train all night. If it were necessary she could prove it."

"Yes, and she has admitted that she was at Dr. Kalb's sanatorium—wrote you from there, declares she left her emerald butterfly in his safe. I saw her take something from the safe. Saw the butterfly in her hand! I saw her hand! I heard her voice! If you ask for further evidence, how about your society friends, her dupes, and the fake beauty doctor's? Oh, your promise of secrecy!- Well, thank Heaven I'm not bound by it, though I should respect your wishes in a matter less serious. But when murder creeps into the case the fads and fancies of a lot of fool women may be disregarded! I shall inform the police that a crime has been committed, and lay before them the facts that have come to me by hearsay and observation."

"You—you—infernal—" choked Heyward, almost beside himself with rage.

"That'll do, Jimmie. It's a nasty job, and I don't like it a bit better than you do, but don't imagine for a moment that I am going to sit quietly by and let you be roped into this affair as an accessory. You have spoken of friendship, and of the limits to which it will go. Mine for you goes to the extent of helping you when you have ceased to desire my help—of ignoring your protests, your complaints, and your affronts."

"Oh, drop all that!" exclaimed Heyward angrily. "You may call it friendship, but I call it unwarranted interference. But I see you are determined to have your way, however offensive it may be. Of course Miss Berkeley is innocent, and can prove it. At least, give her — give me enough time to convince you of your error, and then—then you can go to the dickens for all I care!"

"I'll give you until this time to-morrow," Bartlett said decisively. "Not a minute longer! In the mean time I shall have this young lady watched, so that she shall not mysteriously disappear — with your help. And I shall stick to you, Jim—and stick close."

"Jimmie—I don't understand. Are you crazy, or am I? Or is this man? Jimmie, you must tell me!"

The girl stood looking from one to the other in bewilderment and dismay.

"May I have half an hour to confer with Miss Berkeley?" asked Heyward with an angry sneer.

"Half an hour? Yes." Bartlett looked at his watch. "I shall wait in the hall, where I can see you."

With a formal bow to Miss Berkeley he stepped through the doorway.

Thirty minutes later Heyward came out of the reception-room. His cheeks were flushed, his eyes shining. Bartlett was talking to a quietly dressed woman of about thirty-five, with an aquiline nose and alert gray eyes.

"One moment," he said, as Heyward walked briskly by them. "Let me introduce you to Miss Allbright, who will act as chaperon to Miss Berkeley in the lamented absence of her cousin."

Heyward turned abruptly on his heel and advanced toward them, his face flushing more deeply, his hands clenched tightly against his thighs.

"This is too much!" he exclaimed, barely acknowledging the woman's presence by a slight lift of his hat. "To set a female detective to spy upon—" It was the woman's turn to flush.

"Pardon me; Miss Allbright is not a detective," said the physician. "She is a trained nurse—a lady of refinement and discretion. I telephoned her and was fortunate to find her disengaged. More fortunate still, she is well known to Miss Berkeley, having recently nursed her while she was under treatment at Kalb's so-called sanatorium. I knew that she had gone to some such establishment, against my remonstrances, and I called her up on the chance that if it were Kalb's place, she would be free for a few days."

"I should have been free to-day anyhow, if the doctor—if he was a doctor—had not suddenly dismissed me day before yesterday," spoke up Miss Allbright. "He was a fakir of the first water, and I threatened to tell his patients if he persisted in his ignorant and mischievous treatment. I went there originally to take charge of an ordinary nursing case—"

"Yes, I know," broke in Heyward, grasping her hand and shaking it warmly. "I'm delighted to see you, and Miss Berkeley will be, too. Go right in and speak to her, and don't let her out of your sight for a moment until you hear from me" — he looked at his watch—"oh, some time this afternoon."

He broke into a hearty laugh, as he almost pushed the astonished woman into the reception-room, and turned to the no less astonished Bartlett with an expression which he vainly tried to make serious and severe. The effort was too much for him, and he gave it up. Seizing the perplexed physician by the arm, he cried:

"Come on, you poor, blind, blundering idiot! Since it's impossible to shake you, come with me to the Cunard pier. The Mauretania sails at twelve, and we've just time to make it!"

He hustled Bartlett out of the building and into the waiting taxicab.

"Look here," said Bartlett, as they whirled away westward, "I utterly fail to understand the joke that seems to amuse you so much, but—"

"No; and I don't intend you shall," Heyward interrupted him, "until I am ready to spring it on you in all its beautiful completeness."

"But if you suppose for an instant," Bartlett resumed, "that I am going to permit you to run away to Europe—"

"Why not?" demanded Heyward, "if I want to? And you'll have to go with me, if you keep your word to stick by me. You can't stop me, except by physical violence, and if it comes to that, I fancy I'm still just a little the better man of the two," and with his eye he measured his athletic frame against the slightly corpulent, less muscular body of the other.

"Oh, I'm not going to fight you," Bartlett protested

"I know you're not," Heyward assented cheerfully. "You're going to undergo a much more painful and humiliating experience. You're going to abase yourself in the dust with shame and sorrow at the feet of Miss Berkeley. You're going to suffer agonies of remorse for your conduct and language this morning. And the worst of it is that she will never completely forgive you," he continued more quietly. "She may say so and try to do so for my sake, but her words of pardon will come from her lips, and not from her heart, and you will always know it and feel it. I'm frank to tell you that after I have sated myself with revenge by witnessing your abject self-defeat, and listening to your cringing self-denunciation, I shall probably pardon you in the end – partly because I really believe that you have tried, however mistakenly, to do me a friendly turn, and partly because I know that you have succeeded, however mistakenly, in doing it.

"Last night you reassured me by stating your belief that there could be no mystery involving human characters that could not be solved by a man of average intelligence, such as you assumed we both possessed. If the case of Miss Berkeley may be regarded as a test one, your theory is certainly correct, as you would have discovered if you had followed my methods instead of your own, or if you had even availed yourself of the sources of information which you possessed, and I not.

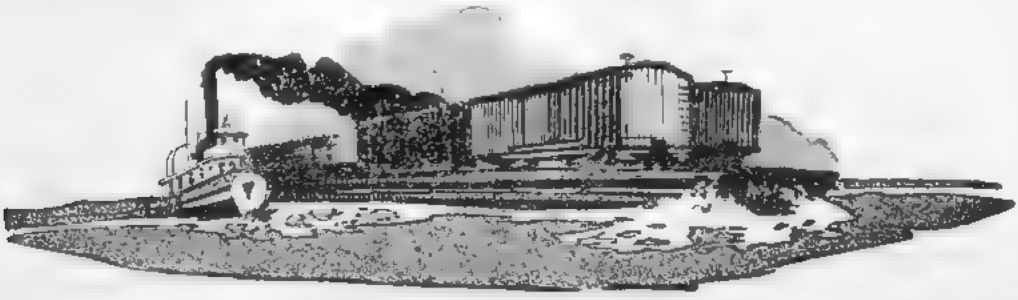
"In fact, my first essay as a detective has proved too easy for me to be willing to accept it as a real test of my powers; but be sure that if I ever attempt the rôle again, I shall value your assistance, for you have been of far greater use to me to-day than you realize—and you are going to help me still further."

"All of which is interesting, if true," commented Bartlett with a grunt. "Then your promise to communicate with Miss Allbright this afternoon was only a bluff?"

"Have you never heard of wireless telegraphy?" exclaimed Heyward as the cab rolled down the pier.

The bell was already ringing to warn the last leave-takers ashore, a dozen stalwart sailors were standing by the gangplank, as Heyward dashed aboard, followed closely by Dr. Bartlett.

(To be continued.)



On the Upper Deck.

BY A. HERSCHIN.

What Followed a Signal to Stop at a Flag-Station During a Lone Night Ride in Southern Oregon.

IMMEDIATELY after the crew swung aboard the moving train, two men sprang out of a hiding place on the dark side and made a dash for the blind baggage.

They caught it easily.

To their disappointment, however, they found that the narrow space between the two cars was already preempted by two non-paying occupants.

Plainly these last-mentioned men were physically capable of holding their advantageous position, for even in the dense darkness of the valley-night their huge proportions could be convincingly discerned as their bulk swayed with the cars' movements.

Force being the only argument pertinent to such an exigency, the smaller newcomers were compelled to heed the two burlies when one of them snarled:

"G'wan, now, youse; git out o' here! We all can't stick in this place! Deck it! Gimme y' foot an' I'll shoot y' up!"

Properly the prospect of an all-night ride on a long division, subject to the imminent cold altitudes was not very alluring to the interlopers; but notwithstanding their grumbles and muttered objections they obeyed the command, accepted the assistance, and were duly lifted to the roof of the gliding car.

They were just out of Ashland, the southern end of the longest coast division on the S. P., which, with Roseburg as the northern terminal, embraces 144 miles of Southern Oregon territory. To negotiate this undisturbed is considered by the tramp a rare accomplishment. Given the ride to Roseburg, he is virtually out of the wildest part of the road. Thenceforth his way lies principally over a gradual decline to the invariable objective point, Portland.

Soon the screech of the siren announced the first stop at Medford, thirteen miles distant.

The two "top-deckers" hastily tumbled over the ventilator hump to the darker side of the car—away from the brilliantly lighted station and prying eyes.

They glanced inquisitively at the tops of the cars behind them.

There were hobo decorations on every one, as could be seen easily when they stood partly erect to "trade off" sides as the train approached Medford. Even the big burlies on the blind-baggage were less valorous. They used discretion where possible exposure was involved, and were climbing aloft for temporary concealment.

A brief stop was made.

To the men aloft there came all the varied noises incident to train activity: the shouts of the railroaders, the buzz of passengers, the rattling of tin cans, the clatter of the operator's key, the discharge of trunks and baggage, the scuffling of many feet, the rumble of freight trucks, a brazen toot from a motor-car hastening with a belated traveler, and with it all the labored breathing of the engine impatient to be away.

"All aboard," sang out the conductor, and again they were in motion.

The two big tramps slipped back to their comfortable vantage on the blind, while the other would-be usurpers set themselves against the pending upper regions. So far the riding was agreeable enough, the road

being perfectly level for a long distance and the night air, though brisked up a little by the running train, was not altogether unendurable.

One of the tramps lay prone at the ventilator over a lamp inside. He pulled his arms close up into his coat-sleeves, doubled them around the little stack, and, with a quid of tobacco in his mouth, settled himself in anticipation of the coming cold.

The other sat on the hump with his back to the wind and dosed himself with occasional long, deep "pulls" at a bottle of whisky.

He offered his companion some.

"Have a jolt, Billy," he urged; "it'll heat y' up. Better than layin' there, freezin' stiff."

The prone one raised his head.

"Nothing doing," he refused, "I don't want it. Sling it away! What kind of a nut are you, anyway, boozing up here on a rambler? Gone dippy? Ditch it, or you'll flop off!"

The convivial one growled angrily and muttered something about "the gall o' some people with their temp'rance lectures." Then he took another "shot" and blurted into a thick, woozy "bes' band in th' land!"

"All right," his mate said, "you tank up if you want to; but for me, I can't stand it on the ground, let alone guzzling on a top-deck."

> Come on an' hear; come on an' hear,
> It's th' bes' band in th' land!

was the foolish response.

At intervals the sober man warmed himself internally by a favorite trick with those who can stand it—swallowing a little tobacco-juice. This was always his method in chilly weather, and, so far, he had never had any disagreeable results.

The train pounded swiftly on her favoring bit of track. It sped on and on, and once, when he looked up, Billy saw the road ahead lay flat as a pie-plate where the big headlight spread out fan-shape and showed up parts of the scenery glaring and distinct.

It was an ink-black night. The stars looked down with a cold, steady stare. Finally the upper elevations appeared. Some distance ahead loomed forth the dark sinister outlines of the mountains densely wooded with groves of the eternal pine. Round and round the train wound its sinuous length under diminished speed.

It had grown colder gradually, and now in the up-country the snow-chill and wind, stirred by the moving train, penetrated the tramps. Billy's hands felt it first. Being cramped and awkward he withdrew them from his sleeves. He slapped them around his body, on the roof and against the ventilator to induce a little warmth. But it soon became wearisome, and when the lights inside were turned low it put an end to this source of comfort.

His legs and feet pained. He jerked them up and down trying to keep the blood lively—without avail.

Then all his body took to shaking; trembling nervously at first, then violently with the increasing cold.

He wonders yet that those beneath were not aware of his presence what with the racket he raised.

He groaned—groaned with the bitter, icy, wind-driven cold, and the knowledge of worse to come. It was drawn from him without any effort on his part; just a natural involuntary objection to the pain. Whatever the cause, he groaned—shriveling to a knot one moment and relaxing the next. His vitals seemed to have vanished.

Soon he lost all interest in his surroundings.

Like a confused muttering he heard his friend still harping on the inane "Come on an' hear, come on an' hear!" The song sounded faint and distant, he remembered afterward, and he merely became unconcerned to the night, the ride, his friend—everything.

A merciful half-consciousness was upon him. They were now at the highest point on the right-of-way and were taking the down grade.

The train took away on a swift run. Away she went—lurching now on this side, now on that. On they raced—down from the high places, dropping deeper, ever deeper, into the valley. With it came a grateful sense of increasing warmth.

The partly stupefied man vaguely remembered something. Mechanically he released one stiffened arm from its hold on the stack. He fumbled in his pocket and brought out the last little piece of tobacco.

He placed it in his mouth and munched slowly. Finally he swallowed a portion. The fiery stuff scalded his throat; he gasped and the tears came to his eyes, but otherwise he was better. It returned to him his numbed senses.

Rapidly, noisily, the ride proceeded. At length the final grade was cleared. They were in the low levels. Ahead the course lay flat with but few curves to take.

All this time the second tramp was conscientiously feeding his appetite with whisky. A concluding "pull" at the bottle—and away it went through the air, propelled by a vicious drunken heave.

They rounded a curve.

The inebriate peered forward intently into the gloom. Then he rose and staggered over his companion's body and stood motionless on the curving roof.

Billy looked up. The drunk was watching fascinatedly a swinging light far up ahead in the dim distance. It was a flag-station; some one was signaling a stop.

The unfortunate man moved as if to go up front. He swayed unsteadily, tried to balance, and, with a yell, slipped.

He fell over the sprawled man. Intuitively he grabbed at his garments—anything—as he felt himself going.

His booze-weakened fingers drew away slowly. He dug in tighter as a sudden realization of his plight flashed across his dazed mind

He grabbed the extended hand of his horrified friend at the wrist, sank one free hand into the edge of the roof, and there he hung madly, his body dangling almost entirely in mid air on the darkened side of the rocking car.

He worked with wild fear. Terror drove the stupor from him and lent him new power. He hung silently, his speech was frightened away, and he drove his nails into his hold of flesh.

His friend lay motionless with the terrible burden of a dead weight.

At the first clutch his arm seemed to tear away from its socket as the muscles and cords strained to their task. His face twisted into an agonized grin, his teeth locked together and ground in a way that sent a sharp crazing ache to his brain.

A moment of dreadful apprehension lest the stack supporting his left arm should give way, but it stood firm.

He could not pull—he was too weak—he could not assist in any way other than to remain flat, motionless, rigid, like an anchor, and leave the rest to the one in peril.

Slowly, slowly—heart-breakingly slow—came the reassuring feel of the man trying to help himself.

The climber paused an instant for breath. Then his hand left the roof and seized his friend's outstretched arm. Hand over hand he mounted slowly and surely. He leaned to the left a little. Up came his right leg for a foothold.

A quick throw of the body and he was resting on the extreme outer curvature of the car-top, his hold intact.

Breathing hard he gave a final shift to his body, and releasing the saving arm, threw both hands around the stack above the hold of his fainting rescuer.

One final body-racking quiver of fright shot over him, and he, too, fell unconscious.

The air-brakes ground to a slow-down; the train came to a stop.

The grateful man looked at his friend with gravely intent eyes—eyes that expressed all.

"Billy," he said, "I'm 'bout all in. Want to go in that joint an' have a cup o' coffee, an' then double up in a room with me? I got th' price."

"We-e-ll;" his companion hesitated. "All right; but only on one condition."

"What is it?"

"That you cut out the booze as long as we're traveling together. Great snakes, man, you gave me an awful scare!"

"You're on, Billy!" the penitent asserted heartily. "An' the pledge will stick for good. I've learnt my lesson all right."

WAGES FIFTY YEARS AGO.

THE hours of labor exacted by some of the Brooklyn railroad companies are so many and the work is so severe that it is astonishing that men can perform the labor and live. The Brooklyn Central Railroad Company require seventeen and a half hours of labor and allow no time for procuring meals, the food necessary to sustain life being eaten in the cars. The compensation for conductors and drivers is $1 35 per day. The Brooklyn City Railroad Company exact but thirteen and a half hours service, allow twenty minutes for dinner, and compensate their conductors at $1.50 and their drivers at $1 38 per day. The Brooklyn and Newtown Railroad Company require about twelve hours of labor, allow ten minutes for dinner, and compensate their conductors and drivers at $1.50 per day.—*From the Scientific American of* 1863.

O'ER RUSTED RAILS.

How Things Looked to Railroaders in the "Good Old Days."

Reminiscences Which Tell of the Romance, Adventure, Struggle, and Queer Outlook When the Great Game Was in Its Infancy.

BY SIMEON O. WATSON.

AROUND SALT LAKE.

What Some Old Boys Remember of the Early Days in Utah.

IN a little cigar-store in Ogden, Utah, a stone's throw from the station where the Southern Pacific and the Union Pacific Railroads meet, there still may be found, almost any evening, a group of survivors of the first railroad days of the Far West

Among them are Anson Ross, who used to be a guard on the overland stage-coaches long before there was a single rail laid west of Omaha, and who later was an express messenger on the Central Pacific; Thomas A. Whalen, the old Central Pacific conductor, who knew Stanford, Crocker, Huntington, Mackay, and all the other famous Californians of the early days; Charles O. Wheat, once a pony-express rider, and, later, driver of a mule-train carrying supplies to the builders of the Union Pacific; and James Cassin, who saw the last spike driven at Promontory, and was conductor of the Central Pacific train that was held up at Montello in 1883.

Sometimes John Beirne comes up from Salt Lake City with a tale of his experiences as a brakeman on the U. P. in the sixties, before the two roads met; or Felix Cassidy, from Sparks, Nevada, to tell of some of the queer passengers who used to ride on the Central Pacific in the early seventies.

One of the most prosperous of the group is Cassin. His wealth is not very great, but he is one of the substantial business men of Ogden, and he owns a good-sized office-building on the city's main thoroughfare that bears his name. Perhaps he would have been worth millions if he had taken the advice of his friend Daly; but one can judge of that for himself on reading the story he tells:

"Marcus Daly and I always had bad luck when we were out in the mines," he said to me once. "We came near starving to death together on one occasion. We were in Virginia City in 1864-1865, when the silver-mines gave out, and I was with him again at White Pine, which was also a starved out camp. We had all we could do getting food enough to hold soul and body together. I was sick of that sort of life after we left White Pine, but Daly still had his nerve with him.

"'Come with me,' he said. 'We'll stick to the mines, and strike it some day, Jim.'

"'No, Mark,' I said. 'I'll go near the mines no more.'

"'Well, Jim,' said he, 'the world's before me. The only people I've got are some

relatives over in Ireland, and if I get rich I'll make 'em all glad. If I don't, they won't know it.'

"Of course, everybody knows what became of Marcus Daly, of how he made millions and millions out of copper up in Montana. He built the Anaconda Railroad, and the last time I saw him he was talking about the day when he would build a railroad clear through to the Pacific, but he never got that far.

"After leaving him in Nevada I drifted into Utah, where I heard that the Central Pacific and the Union Pacific were about to be joined at Promontory. So I went there to see the ceremonies. I saw Leland Stanford, president of the Central Pacific, and Thomas C. Durant, president of the Union Pacific, drive the golden spike, and there was a lot of cheering when the two engines met, and a bottle of wine was poured between them

"That day I got the idea of becoming a railroad man, and a little later I went on the Central Pacific as brakeman. Fourteen years later, on a winter night in 1883, I was the conductor of the train that was held up by robbers at Montello, Nevada, where Anson Ross, our express messenger, made a hero of himself by shutting the door of the express-car in the bandits' faces and opening fire upon them through the boards. In the return fire that came through the door, Ross had a finger nipped by a bullet, but the robbers didn't get into his car.

"The engineer, William Russell, now master mechanic in the shops at Oakland, California, beside the brakemen and myself, were taken and shut up under a water-tank near a Chinese section-house. It was a terribly cold night, with snow sifting down through the moonlight, and we almost froze to death before the gang let us out. They were frightened away before long by the approach of a train from the East which they thought carried troops.

"One day, some time after I had worked up to be conductor, Marcus Daly happened to be riding on my train. I hadn't seen him since we separated at the mines. He had grown rich, and his name was known all over the country.

"'Well, Jim,' said he, 'here you are. Is this the best you can do?'

"'I'm satisfied, Mark,' said I. 'It's better than starving out in the mines.'

"He looked me over for a moment, and then he said: 'Jim, you come with me to Montana and I'll make you rich. I've got money enough to build railroads of my own'

"I thought it over, and decided not to go. I didn't want to take chances, for I had a young wife and baby, and I didn't know how long Daly was going to hold on to his money. He asked me to come with him again and again, but I never would. So here I am in Ogden, where I've been fairly prosperous and contented. But a big 'if' comes into my mind whenever I look back into my past. I wonder whether I'd have got rich if I had stuck to Daly."

John Beirne, of Salt Lake City, is one of the old-timers who has had many an experience worth telling about; but the one he remembers most vividly is his escape from a band of Sioux Indians near the western border-line of Nebraska while he was employed by the Union Pacific as a brakeman, almost a year before the road had been completed to Promontory.

"It was at the time I was running through Nebraska on a freight that I made friends with Charlie Brown," said Beirne, in telling me this story. "Brown had been working in the construction gang, but when I fell in with him he was picking up odd jobs along the road and doing nothing most of the time.

"At one time he was on board my train when we were held on a siding for more than half a day at a point about midway between Julesburg and Cheyenne. Brown said he knew where we could get a couple of ponies, and suggested that we go for a ride Our conductor shook his head and told us we'd better not, for there were bad Indians roving about in that part of the country. We laughed at him, and said we'd take a chance; so Brown got the ponies, and we started off across the plains to the north

"We must have ridden about five miles from the train, and were jogging leisurely along, with Brown riding about a hundred yards ahead of me, when I saw him swing suddenly around on the top of a little ridge and come tearing back toward me. His face was dead white, and he was hanging over the pony's neck. Of course, I knew what was up even before he had yelled 'Injuns!' and as I turned my own pony I caught sight of them less than a mile away to the north. There must have been at least twenty of them, and they were coming toward us like the wind.

"We had a fine start, but our horses weren't very good ones, and the Indians were gaining on us with every minute, it seemed to me; but it must have been my imagination, for they chased us to within half a mile of the train before they got near enough to shoot. Then the arrows began to whistle around us, and one struck Brown's pony in the neck and he fell. Brown jumped off unhurt, but scared almost stiff.

"'Run for it, Charlie!' I yelled at him. He could run like a deer, and he must have broken his record in that sprint toward the train. He stumbled and fell just before he reached it, but the Indians were already riding away. Their arrows had not touched either of us. They were a cautious band of Sioux, and they didn't care to take chances with the armed men on the cars."

"When I was a brakeman on the Central Pacific, in the early seventies," said Felix Cassidy, from the railroad colony in Sparks, Nevada, "I got to be good friends with some of the Mormon leaders. The rich ones always traveled in style. Brigham Young always had a private car, and often he had several of his wives along with him. He seemed to take a liking to me, and he asked me one day if I wouldn't like to join the Mormon Church.

"I had been courting the pretty daughter of a Mormon farmer, but I didn't care anything about becoming a Morman myself, though I knew it would be the easiest way to win the girl. For weeks I thought the matter over, and every time old Brigham rode on my train he would ask me if I had made up my mind, and then would tell me what a fine church it was. I think I might have followed his advice, but something happened about that time that saved me. My girl eloped with a salesman from Omaha. I never cared to talk with old Brigham about Mormonism after that."

THE VANDERBILT RUN.

How Eugene Martin Hustled the Millionaire Over the West Thirty Years Ago.

EUGENE MARTIN, of Crosses, Arkansas, is the engineer who made the famous run on the Vanderbilt special from Council Bluffs, Iowa, to St. Joseph, Missouri, just thirty one years ago. The story is famous with old-timers. In those days, railroad beds in the Missouri Valley were not so smooth as they are now. The rights-of-way of the companies were not inclosed, and the running time was slow, because cattle, horses, and other domestic animals often had to be chased from in front of the trains.

But even in those days there were sturdy engines and sturdier engineers, and Martin was one of the latter. It happened that one day, in 1880, Cornelius Vanderbilt, in his private car, was touring the West. He found himself in Council Bluffs about nightfall, and was anxious to be in Kansas City the next morning.

J. F. Barnard was the general manager of the old "K. C." railroad. He made his home in St. Joseph. He met the Vanderbilt car in Council Bluffs. He told Vanderbilt that he could get him to Kansas City as he desired, but that they would have to "go some."

Vanderbilt wanted to go. Barnard summoned Martin, then a young man of thirty, and known as the nerviest engineer on the river. He told the engineer to pick his engine, couple onto the two cars which were to be used for the trip, and not to stop until he reached St. Joseph.

Martin took the general manager at his word. Before the train left Council Bluffs all switches along the road were ordered locked and all trains were side-tracked.

The railroad men entered their cars. Martin jumped into his cab, the signal was given, and the train was off on a run of one hundred and twenty-eight miles over a rough road. Martin was told to stop for nothing unless he had written instructions.

When Forbes, Missouri, was reached, about thirty miles north of St. Joseph, some sharp curves were struck. Vanderbilt felt unsafe, but the speed did not diminish.

Bill Harris, the negro porter, was sent forward with written instructions to slow up. Martin had refused to pay any attention when the bell-cord was jerked furiously. But Harris could get no further than the tender. The wind was so strong he dared not attempt to reach the engine.

On sped the train with unslackened speed. In a short time there was heard a long whistle, the train slowed up, and in a few minutes more the special had landed at the Francis Street station on the Missouri River bank.

An inspection of the engine showed that

the headlight and the flagstaff and trimmings were gone. The pilot and entire front of the engine were soaked in the blood of cattle that had been killed. The engine was hustled away to the shops, another was secured, and the trip continued to Kansas City.

The trip consumed a little more than two hours—practically a mile a minute.

The engine used was old No. 15, which saw much more valuable service before she was finally dismantled. The engineer is not now an old man, being but sixty-one years of age. His famous run with the Vanderbilt special will always be looked upon as one of the wildest ever made in the West.

DUFF BROWN'S RACE.

Eighty Miles an Hour with Burning Oil-Cars in Pursuit.

ONE of the most thrilling events in railroad history is the ride down Brocton Hill, in 1869, of Engineer Duff Brown, on the old Buffalo, Corry and Pittsburgh Railroad, now a part of the Buffalo division of the Pennsylvania Railroad.

In 1884, six months before his death, Engineer Brown called in a reporter for the Brocton, New York, *Enterprise*, and gave him all the details of his hair-raising experience. A copy is owned by Harry Kirkland, a Pennsylvania conductor.

"I don't expect to live much longer, and after I am dead I want you to put in the papers the story of that ride I had from Prospect to Brocton in 1869," said Duff Brown.

"In 1869, I was running a mixed train on the Buffalo, Corry and Erie Railway. The track between Prospect, or Mayville Summit, and Brocton Junction is so crooked that, while the actual distance is only ten miles, the curves make it fourteen by rail. The grade for the whole distance is over seventy feet to the mile.

"About nine o'clock on the night of August 17, 1869, we reached the Summit with a train of two passenger-cars, six oil-cars, and a box car. The box car contained two valuable trotting horses and their keepers, on their way, I believe, to the Cleveland meeting. There were fifty or sixty passengers in the two cars.

"I got the signal from the conductor to start, and I pulled out. We had got under considerable headway, when, looking back, I saw that an oil-car in the middle of the train was on fire.

"I reversed my engine and whistled for brakes. The conductor and brakeman jumped off. They uncoupled the passenger-cars and set the brakes on them, bringing them to a stop.

"Supposing that the brakes on the burning oil-cars would also be applied, I called to a brakeman on the box car to draw the coupling-pin between that car and the head oil-tank, backing so that he could do it, intending to run far enough away to save the box car and locomotive.

"As I ran down the hill after the pin had been drawn, imagine my horror to see that the burning cars were following me at a speed that was rapidly increasing!

"The men had not succeeded in putting on the brakes. I saw that the only thing to be done was to run for it to Brocton, and the chances were that we would never reach there at the speed which we would be obliged to make around those sharp reversed curves, where we had never run over twenty miles an hour.

"When I saw the flaming cars—the six were on fire by this time—plunging after me, and only a few yards away, I pulled the throttle open.

"The oil-cars caught me, though, before I made any distance. They came with full force against the box car, smashing in one end and knocking the horses and their keepers flat on the floor.

"The heat was almost unendurable, and to do my best I couldn't place more than thirty feet between the pursuing fire and ourselves. By the light of the furnace, as my fireman opened the door to pile in the coal, I caught sight of the face of one of the horsemen in the box car. He had climbed up to the grated opening in the end. He was pale as death, and he begged me to give her more steam!

"I was giving her then all the steam she could carry, and the grade itself was sufficient to carry us down at the rate of fifty miles an hour. We went so fast that every time we struck one of those curves the old girl would run almost on one set of wheels.

"Why she didn't topple over is something I could never understand. She seemed to know that it was a race for life, and worked as if she were alive.

The night was dark, and the road ran through woods, deep cuts, and along high

embankments. There we were, thundering along at lightning speed, and, only a few paces behind us, that fiery demon in full pursuit.

"There were at least fifty thousand gallons of oil in those tanks, and it was all in flame, making a flying avalanche of fire three hundred feet long. The flames leaped into the air nearly a hundred feet. The roar was like that of some great cataract

"Now and then a tank would explode with a noise like a cannon, and a column of flame and a pitchy smoke would mount high above the body of the flames, and showers of burning oil would be scattered about in the woods. The whole country was lighted up for miles around.

"Well, it wasn't long, going at the rate we made, before the lights of Brocton came in sight. The relief I felt was short-lived, however, for I remembered that train No. 8 on the Lake Shore would be at the junction just about the time we would get there.

"No. 8 was the Cincinnati express. Our only hope all along during the race was that the switchman at the junction would think to open the switch there, connecting the cross-cut track with the Lake Shore track, and let us run in on the latter, where the grade would be against us, if anything, and where we would soon get out of the way of the oil-cars.

"The switch, of course, would be closed now for the express, and our last hope was gone, unless the express was late, or somebody had sense enough to flag it.

"While we were thinking of this we saw the express tearing along toward the junction. Could we reach the junction, get the switch, and get the switch set back for the express before the latter got there?

"If not, there would be an inevitable crash, in which not only we, but scores of others would be crushed to death. All this conjecturing did not occupy two seconds, but in that two seconds I lived years.

"What are we to do?" I asked my fireman.

The fireman promptly replied—and he was a brave little fellow—that I should whistle for the switch and take the chances. I did so—that whistle was one prolonged yell of agony. It was a shriek that seemed to tell us that our brave old engine knew our danger and had her fears.

"Neither fireman nor myself spoke another word. Thanks be to Heaven! the engineer on the express-train, seeing us tearing down that mountain with an eighth of a mile of fire in close pursuit, realized that only one thing would save us.

"He whistled for brakes, and got his train to a stand not ten feet from the switch.

"The switchman now answered our signal, and we shot in on the Shore track and whizzed on by the depot and through the place like a rocket.

"The burning cars followed us in, but their race was run. They had no propelling power now. After chasing us for a mile, they gave up in pursuit, and in three hours there was nothing left of them but smoking ruins.

"My fireman and I were so weak when we brought our locomotive to a stop that we could not get out of our cab. The two horsemen were unconscious in the box car. The horses were worthless.

"And how long do you think we were making that sixteen miles? Just twelve minutes from the Summit to the spot where we stopped, two miles up the Lake Shore track. A plump eighty miles an hour, not counting the time lost getting under headway and stopping beyond Brocton."

QUEER OLD RULES.

Some of the "Standard Code" Used in the South Some Fifty Years Ago.

A CURIOUS relic of railroad operation fifty years ago, down in Tennessee and Georgia, is exhibited in the following extracts from the rules then in force. In this present age of heavy trains and heavy traffic, and in the light of our present rules for operations, these old-times rules seem crude and inadequate:

> Each engineman will keep a watch which must be regulated by the time of his conductor at the commencement of each trip, and will always have in his possession the current schedule book.
>
> Should any stock be killed which may be likely to endanger the safety of the next train passing, the engineman will stop his train until track is cleared
>
> In connecting and in starting with his train, the engineman will be exceedingly careful in the management of his throttle so that the cars may not be injured or the passengers annoyed by the violence of the start
>
> When a train is approaching a stopping-place it is the duty of the engineman to see that his fire is regulated so that it will not

be necessary to blow off steam while the engine is stopped.

All engines running at night, out of time, must keep their dampers open so as to show a light.

When an engine is to be followed by another at daytime, the forward engine will have on its buffer a red flag spread.

If no engine is to follow during the day, then the flag must be furled and bound to the staff

One of the rules for conductors is:

As a general rule, when trains meet between stations, the train nearest the turn out will run back. Any dispute as to which train has to retire is to be determined at once by the conductors, without any interference on the part of the enginemen. This rule is required to be varied in favor of the heaviest loaded engine or the worst grades. If they meet near the center, in case of backing, a man must be placed on the lookout, so that any danger to the rearmost part of the train may be seen and the engineman at once receive notice. The backing must be done cautiously

For any violation of the above rules, for running off at turnouts, for all other irregularities, the general superintendent will impose such fines as he deems just and called for by the nature of the offense

THE B. AND O. DURING THE WAR.

Important Part Played by Railroad During the Conflict Between the North and South.

DURING the Civil War the Baltimore and Ohio was the line of strategical advantage for both armies. Situated a few miles south of and paralleling Mason and Dixon's line, the B. and O. was the principal highway between the East and West for the transportation of troops to Washington answering President Lincoln's call to arms. The road was also used by the Confederates in their maneuvers before Washington and in the campaigns of Northern invasion. The road was, therefore, in military possession almost constantly for several years.

John Brown and his band of abolitionists were the first to take possession of the Baltimore and Ohio, which they did on the memorable Sunday night of October 16, 1859, when the raid was made on the government arsenal at Harper's Ferry.

Brown and his followers barricaded the railway bridge across the Potomac and held the express from the West, which arrived during the attack, until noon the next day.

Troop-trains, commanded by Colonel Robert E. Lee, later the commander-in-chief of the Southern forces, that were despatched from Washington to quell the riot, is the first record of soldiers using the B. and O.

The first land battle of the Civil War was fought at Phillipi, West Virginia, then in Virginia, on June 3, 1861, along B. and O. lines, and from then until the surrender of General Lee at Appomattox Court House, the road suffered from the destruction of property and equipment and from the interruption to operation. The most serious damage was done on the line between Washington and Martinsburg, a section of the road over which the veterans ran trains.

With trainmen, the question, "Who's been here since I've been gone?" was a frequent one.

The memories of the railroad patriarchs of those days are replete with unwritten history of the railways during the war. Michael Kirby, one of the "vets" of the B. and O., was running an engine between Baltimore and Martinsburg in those days, and has a clear recollection of the destruction to railway property incident to the raids conducted by armies on both sides of the struggle.

Mr. Kirby recalls the destruction of locomotives and cars by throwing them into the river at Harper's Ferry; also tearing down bridges to prevent opposing forces from using the railway line in transporting troops, supplies, and ammunition.

During the month of July, 1861, the Confederate army seized fourteen locomotives and several passenger and freight cars between Harper's Ferry and Martinsburg, and took them to Southern railroads. Thomas Sharp, who was appointed master of transportation of the Baltimore and Ohio at the close of the war by President John W. Garrett, was in charge of the Confederate skirmishing party that seized this equipment.

Six locomotives, four passenger, and two freight were taken one day. The passenger-engines were the 199 and 83, ten-wheel Winans engines, run by Engineers Kirby and William Woolley.

Recalling the circumstances of their seizure, Mr. Kirby said:

"The engines were in the railroad-yard at Martinsburg when taken by the Confederates. They had been there several days,

excepting the passenger-engines that Woolley and I were running. At that time, it must be remembered, operation was uncertain, and the power was stored at Martinsburg because we were unable to run it on the road in the condition the line was in.

"Woolley and I had just reached Martinsburg from Baltimore after great delay, due to the crippled condition of the line following the evacuation by troops. At this particular time, however, it had not been damaged as seriously as it had been, or as seriously as it was later. After delays along the road we were to get along by spiking the rails into position to pass over them with our trains.

"The Confederate skirmishing party, commanded by Thomas Sharp, ran the engine from Martinsburg to Kearneysville, about midway between the former point and Harper's Ferry, under steam, and from there they were drawn to Winchester, Virginia, over the turnpike by teams of six oxen to an engine.

"In those days, it will be recalled, engine-tires were cast iron, and secured by bolts, instead of being shrunk on, as is the practise now. It was a simple matter to remove the tires and secure a flat surface similar to that on a broad-wheel farm-wagon

"The engines were used throughout the war on the Southern roads. The 199 was called the 'Lady Davis,' after Mrs. Jefferson Davis, and the other engines were given Southern names. After the war we recovered the engines, and they were returned to service on the B. and O."

EIGHTY-SEVEN YEARS AGO.

A Hopeful Outlook for the General Application of Steam as Motive Power.

THE following description of "locomotive steam engines" is taken from an old copy of *The American Farmer* of the issue of 1825:

"A description of the forms and uses of the steam-engine would be endless; already, by its extraordinary energies, the most astonishing results have been accomplished.

"Machinery of all kinds are set in motion; mines are emptied of their contents; carriages of various kinds are propelled on land; and ships are empowered to traverse the ocean by the use of steam-engines. There is little doubt, too, if they were employed in aerostation, that for long voyages steam-engine balloons would speedily supersede the use of land and water carriage, and that their construction and ascension would delight more, from their real utility, than from the temporary amusement they now afford.

"Mr. Watt was the great improver of the steam-engine; but in truth, as to all that is admirable in its structure, or vast in its utility, he should rather be described as its inventor. It was by his invention that its action was so regulated as to make it capable of being applied to the finest and most delicate manufactures; and its power so increased as to set weight and solidity at defiance.

"By his admirable contrivances, it has become a thing stupendous alike for its force and its flexibility; for the prodigious power which it can exert, and the ease and precision with which that power can be varied, distributed, and applied.

"The trunk of an elephant that picks up a pin or rends an oak, is nothing to it. It can engrave a seal, and crush masses of obdurate metal like wax before the sun; it can draw out without breaking a thread as fine as a gossamer, and lift a ship of war like a bauble in the air.

"It can embroider muslin and forge anchors, cut steel into ribands, and impel loaded vessels against the fury of the winds and waves.

"The powers of steam are becoming more known every day. Even typography has received its wonderful aid. The *Times* and other newspapers have for a long time been printed by cylinders impelled by steam, and assisted only by three boys, who are thus enabled to do the work of sixteen men. In addition to the economy in saving manual labor, the otherwise waste steam is carried round the buildings connected with the printing offices, which not only saves a great expense in fuel, but affords that steady and uniform heat so necessary in a printing establishment. Cowper's patent steam-engine prints two sides of a sheet of paper at the same time.

"In all mines the steam-engine is employed; but it is in Cornwall that this wonderful power is used in perfection. There Woolf's engines, or those of the highest pressure, accomplish works of such magnitude as hardly to be credited but by those who have witnessed them. Heat and labor are so far economized that a bushel of coals

will perform the work of twelve horses and raise six thousand hogsheads of water ten feet high!

"Mr. Blenkinsop's patent steam-carriages give great facility to the conveyance of coals, minerals, and other articles, and are attended with material saving.

"The engines are so constructed that by the aid of cranks, fixed at right angles, they put in motion a cogged wheel, acting in teeth cast in one side of the railroad itself, or on a separate rack, by which a very great propelling power is given to the machine; this power is so considerable that when the carriages are lightly loaded they travel at the rate of ten miles an hour; but when loaded with thirty coal-wagons, which is frequently the case, each weighing three tons and a half, they are propelled on a dead level at the rate of three miles and a half per hour.

"The use of these steam-carriages has given the greatest satisfaction, as it is clearly ascertained that five-sixths of the expense of conveying goods by horses will be saved. The use of steam for navigation in Great Britain and the United States of America is very extensive.

"To propel vessels, steam generally acts upon cogged wheels at the sides. In America steam is applied even to the navigation of ships of war. A steam frigate now lies in the bay of New York, three hundred feet in length, two hundred in breadth, and thirteen feet thick at the sides, which are composed of oak planks and cork alternately; it carries forty-four guns, four of which are 100-pounders, and the others are from 42 to 60.

"Besides which, in order to prevent boarding, it can discharge upon its assailants a hundred gallons of boiling water every minute. By the same mechanism, likewise, three hundred sabers are moved outside its portholes with the most perfect regularity; and, four times every minute, as many long spears are darted out with the most incredible force, and pulled back every time for a fresh emission. The following advantages may be anticipated from the use of steam in the navigation of ships:

First: Vessels will not be obliged to wait for weeks or months for a fair wind, to the great loss of time and money.

Second: Neither will they be becalmed at sea, for days and weeks together, in hot climates, to the great injury of the vessel and the health of the crew and passengers

Third: Voyages may be performed within certain limited periods. Markets can be regularly supplied; the public will be benefited, and the calculation of the merchant will not be disappointed

Fourth: The vessel being constructed of great length and breadth, will be steadier in the water, and not liable to be strained by the operation of the wind upon the masts and rigging. Goods will be preserved from injury, and passengers from inconvenience and danger

Fifth: The expense of the first cost of sails and rigging, and the annual repairs of the same, will be saved; and one-third of the usual complement of men, for vessels of the same tonnage, will be sufficient.

Sixth: The value of such an agent as the steam-engine, when the vessel has to contend with strong currents on a rocky lee-shore, will be greatly appreciated. Many a valuable cargo, under such circumstances, will be saved from destruction

OLD-TIME CON RETIRES.

Captain William G. Smith Looks Back Over His Fifty-three Years as a Conductor.

AFTER railroading for fifty four years, fifty-three years of which were passed as a conductor, Captain William G. Smith, familiarly known as Captain "Billy" Smith, has retired, and is now residing at his home in Anderson, South Carolina.

Captain Billy Smith is seventy-three years old. He is a native of Calhoun, Gordon County, Georgia. When still in his teens his health was affected, and he moved to South Carolina, making his home with relatives near Williamston. The present Greenville and Columbia division of the Southern railway had been in operation for one year when he secured a position in the service, working first as a train-hand, at the time when Judge O'Neall was president of the road.

For just a year Captain Billy worked as train-hand, brakeman, or "scotcher," and as head of the commissary department, which furnished board to certain of the employees of the road, pump-minders, track-hands, and others. A run as freight-conductor was then given him, and a few years afterward he secured a passenger run, which he retained until his retirement a short time ago for good from the railroad business.

At the time when Captain Billy first engaged in the railroad business, fifty-four

years ago, there were no brakes on the cars of the freight-trains, and one of his duties at that time, as a train-hand, was in "scotching" or breaking the train on a down-grade.

There were brakes, of course, on the engine and tender, but the wheels of the cars had to be "scotched" by the use of charred logs, secured from the engine, about half-burned, and known as brake-beams These were placed beneath the wheels of the cars when the weight was too much for the brakes of the engine and tender

When the first road between Columbia and Greenville was built, Captain Billy says, there were no elevations at the curves, and because of this and the further fact that a very wide-gage track was used, the train was continually jumping the rails The passenger-cars were made much after the fashion of the present freight-cars—with flat top, and no skylights of any kind. The seats were placed lengthwise of the car, and there was little of comfort then in traveling.

The crew on the engine of the old days when Captain Billy first took up the work of railroading consisted of an engineer, fireman, and wood-passer. Coal was an unknown article at that time, and four-foot wood was used in getting up steam to pull the train.

It was some time before mail-clerks, express and baggage masters were added to the force. The assistants to those on the engine were known as trainmen.

There were two trains on the run between Greenville and Columbia after the road was first put into operation. One left Columbia at 6 A.M., arriving at Greenville at 6 P.M., and another left Greenville about the same time in the morning, reaching Columbia late in the afternoon. The two trains met at Helena, one going into the siding there to allow the other to pass.

Captain Billy had no trouble in securing exemption from enlisting in the Civil War, being a railroad conductor, and there being at the time a great demand for men on the road, many having deserted their jobs and enlisted in the army. Captain Billy says, however, that he was severely criticized at times, especially by the women, for staying away from the war.

Often they would say to him, "Why are you not in the army? A strong, able-bodied man like you should be at the front."

He would reply, "Why, I have to run this train, and haul the soldiers."

"But there are plenty of one-legged men or other cripples that might do that while you could be at the front!" he was told.

Conversations such as this, says Captain Billy, were carried on by him almost every time during the war when the people would flock about the train at the stations, coming for miles and miles around to hear the news from the front. There was always some one on the train who would read the news to the hungering crowd from a paper brought over from Columbia. The scene often was very pathetic when almost every day the name of some dear one would be found among the list of those killed in battle.

At one time in his career Captain Billy says he had a Simon-pure Smith train—every employee on the run was a Smith. His engine was known as the Joel Smith, his engineer was John Smith, the fireman and wood-passer bore this name, and the two train-hands working at the time were also Smiths. The captain mentioned this fact as a strange coincidence, and one that possibly never happened before nor since. For some time there was a Smith in charge of every part of the work on the run between Columbia and Greenville.

THIRTEEN MILES AN HOUR!

The Terrifying Speed That Was Hoped for Sixty-Five Years Ago.

THE following appeared in *The Silver Standard*, February, 1847. It will be seen that, even at that remote period in the country's progress, the belief was that railroads would supersede canals, but *never* river navigation:

"There can possibly be no limit to the increase of American railroads. With an increase of population, there must be an equal increase in travel and commerce, and consequently an equal demand for the means of transit. The population of the United States doubles every thirty years. We have now three thousand five hundred miles of railroad, and we venture to predict that in 1850 we shall have no less than six thousand miles of railroad. We are confident of this from the great success that has attended railroad investments during the past two years, especially on the great lines of communication.

"At the present moment, the Central Railroad of Michigan employs thousands

of laborers, and on the New York and Erie Railroad we are informed that more than three thousand are employed. The greatest energy and enterprise is now displayed in the construction of these roads. The best 'T'-rail and the most approved locomotives are to be used and no expense is to be spared to make them durable, safe, and superior to any built in the United States. The great New York and Erie Railroad is to be on the broad gage. This is a wise policy.

"The broad gage, so far as it has been compared and tested by its results, has maintained a decided superiority over the narrow. There are sixty-two miles of this road finished, and by next summer there will be one hundred and forty. When it is opened from New York to Lake Erie, we shall behold one of the greatest works upon our continent. Huge iron horses will be seen speeding along at the rate of thirty to forty miles per hour, in comparison with which our present engines will appear like Shetland ponies.

"The question may be asked, will this new road destroy the traffic of the Albany and Buffalo chain? We think not—all will have enough of business. The one will have Boston as an eastern point, the other New York, and there will always be an increasing demand to facilitate the carriage of passengers to and from the great valley of the Mississippi.

"The inquiry has often been made, 'Will railroad yet supersede canal and river navigation?' We think they will yet supersede canals—yea, they have already done so in a great measure, but they never can, we think, compete with river navigation. In the one case, rivers are the highways of nature, and canals and railroads are not, and at the present moment passengers and freight can be with profit transported by steamboat for one-third of the amount they can by railroad.

"There can be no doubt but that the price of railroad transport will yet be much decreased, and the only way this can be done is by building good, solid tracks. Superficial railroads that have been successful owe such good fortunes to some extraordinary circumstances. There is great wisdom now exhibited in building roads substantially, and we shall, no doubt, have an average speed of thirteen miles per hour on most of our roads in the course of three years more. We, therefore, look forward with high hopes to the future railroad prospects, believing that railroads are now what macadamized roads were—viz., a test of national civilization."

The Racine *Advocate* says: "When stage-coaches first started in this country (not Wisconsin, but America), all called this mode of traveling extraordinarily rapid. When steamboats made a trip from New York to Albany in twenty hours, all the fast-goers were in ecstasies. When another advance was made, and a boat called the Sun (she ought to have been called the Moon, because that does not go half its voyage sometimes between sun and sun) ran the same distance between morning and evening, wonder was everywhere. When the old North American got her steam up to do it in nine hours or so, it did, in Yankee phrase, 'beat all natur'!' When railroads first got in active operation, with locomotives on them, the world of America went wild at the thought of such unparalleled speed, and deemed it, as it deemed each previous increase, the '*ne plus ultra*.'"

The following letter from Robert R. Livingston, a hundred years ago, chancellor of the State of New York, in reply to John Stephens, will cause a smile to-day.

ALBANY, March 11, 1811.

DEAR SIR:

I did not, till yesterday, receive yours of the 25th of February, and read your very ingenious proposition as to railway communication. I fear, however, on mature reflection, that they will be liable to serious objections and ultimately more expensive than the canal. They must be double so as to prevent the danger of two such heavy bodies meeting. The walls on which they are placed must be at least four feet below the surface and three feet above, and must be clamped with iron, and even then would hardly sustain so heavy a weight as you propose moving at the rate of four miles an hour on wheels. As to wood, it would not last a week. They must be covered with iron, and that very thick and strong.

The means of stopping these heavy carriages without a great shock and of preventing them from running upon each other (for there would be many on the road at once) would be difficult. In case of accidental stops, or the necessary stops to wood, water, etc., many accidents would happen. The carriage of condensing water would be very troublesome. Upon the whole, I fear the expense would be much greater than that of canals, without being so convenient.

Yours truly,

ROBERT R. LIVINGSTON.

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 45.

DEVELOPMENT AND OPERATION OF SIGNALS.

BY ROBERT H. ROGERS.

Ingenious Devices That Automatically Operate with Human Skill and Reduce to a Minimum the Possibility of Collisions.

TO the lay mind, and even to many railroaders engaged in fields other than signaling, there is something mysterious, even baffling to comprehension, in the apparently intricate scheme of distant and home signals, leads, crossovers, turnouts, and what not, but as a matter of fact the functions of these appliances, when divested of technical description, cease to be enigmas.

In the preceding article the general subject of railway block signaling and interlocking was considered with the necessary historical data through which to trace its development, and it becomes logically the mission of this instalment to afford some detail description of the working of the various systems designed for the protection of trains.

Some of these are essentially of such complication as to be beyond thorough explanation in these articles, but the intent is to make clear the fundamentals. Probably the best manner in which the rather difficult subject may be approached is to broadly divide all block systems into two principal and distinct types which may be defined as the "manual" and the "automatic."

In the manual, the block signals at a block station are moved by hand by an attendant according to information conveyed to him from adjacent block stations by the Morse telegraph, needle telegraph, telephone, or single-stroke electric bells sounded in accordance with a prescribed code. The automatic block-signal system provides for the operation of the signals by mechanical or electrical power controlled automatically by the passage of a train into, through, and out of a block section.

A combination of the two, as it were, may be found in the so called "controlled manual," which seeks to embody the advantageous features of each system in an arrangement by which the clearing of a signal requires the simultaneous action of the signalmen at either end of the block.

Manual signaling in its earliest form provided for the complete control of trains by block towers. The system is still in extensive use, but the details operating the signals have been greatly improved.

In its first days the method consisted of towers spaced three or more miles apart. Each tower had two telegraph operators, one working during the day and one at night, and had one attached signal which

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could be placed in two positions, at danger or clear.

The attached signal as a rule was a semaphore, but often it consisted of a lantern larger than any headlight, burning a white lamp, and with a red curtain to drop in front of it. In a few instances an additional green curtain was used as a caution signal when it was desired that the train should enter the block when occupied.

System Was Entirely Manual.

The operation was very simple. When a train passed a tower, the operator simply threw his signal to danger and held it there until the operator in the tower ahead reported to him that the train had passed his station, whereupon the first mentioned restored his signal to "clear" or safety—the majority of signals in those days were normally in the safety position.

The operation constituted a purely manual system, the operator being able at any time to throw his signal to either position, depending entirely on information received by telegraph.

In the majority of instances it performed quite efficiently for years, and it is to the everlasting tribute of the overworked and poorly paid operators of the period that it did so. Their unceasing vigilance and devotion to duty has been the theme of many a stirring story in which truth pales fiction. Of course, many accidents occurred through carelessness or misinterpretation of orders by operators. Just as frequently it was due to the railroad officials when false economy or unusual circumstances held the operator at his post for so long a time that he was temporarily mentally and physically incapacitated.

The Morse telegraph predominated, as it still does, in this system of communicating from tower to tower, but on several roads, many years ago, bells were used as index to signal indications, the telegraph being reserved for train-orders and information which could not be transmitted by bell signals.

Telegraph Block Vastly Superior.

The telegraph block used in England has always been superior to either of these means of communication. In England a modification of the needle telegraph is used in which the receiving instrument gives a visual indication as well as an audible signal. The visual signal, reproducing the motion of the semaphore in miniature, remains in that particular position after each operation, and serves as a constant indication of the last operation.

The paramount weakness of the purely manual block is no doubt already apparent to the reader. It depended on the human element solely, and human liability to err was and is always dangerously prominent in its operation.

As scheduled time grew shorter and trains more frequent, it became imperative that some system which embodied greater safeguards be introduced. To meet the demand came the controlled manual, whereby a train can enter the block only when permitted to do so by the towerman next ahead, who from his tower unlocks the lever to the block signal by electric mechanism, and this he cannot do unless the block is clear.

Though this system, or "lock and block" as it is sometimes called, is an improvement on the Sykes instrument, extensively used abroad, it is really a direct importation from England. It is used quite extensively on the New York Central and Hudson River Railroad, and on the New York, New Haven and Hartford.

Use Distant, Home, and Starter Boards.

Briefly summarized the controlled manual block system means that a train running, say from A to D, cannot pass B until the towerman at C has released B's proceed signal. This release is impossible until any train which may be in the block between B and C has passed C.

The track is electrified, and while the train is between B and C the current is short-circuited by the wheels and axles, and B's signal is immovably locked at danger by a bolt which can only be drawn by C's towerman after the train has passed him and the current has been reestablished throughout the rails of the section.

In this system three semaphores are generally employed, termed respectively the "distant," the "home," and the "starter." The home signal is in every case placed in the immediate vicinity of the tower; the distant about 1500 feet before the home is reached, and the starter is located some 1000 feet beyond the home.

The use of the starter permits trains to use switches under protection which might

exist between the home signal and that point.

The normal position of these three signals is at danger, and the handling of a train under this safe system is extremely simple. The towerman, when a train "rings in" on his block, attempts to clear the signals.

He is obliged to first pull the lever releasing the home signal, then the distant, and last of all the starter. If the starter will not respond it is because it has not been unlocked by the tower beyond, and that a train or some obstruction exists in the block which prevents its operation.

Train Must Leave Block.

The obstruction may be not only a train ahead, but a switch may be open, or a rail broken. In one instance a fire-hook fell from the tender of an engine to the opposite track and landed squarely across the rails This position short-circuited the current and rendered the signals behind the fire-hook useless.

This may appear to be an extreme case, but it occurred under the writer's immediate observation, and illustrates the delicacy of the system when it is working properly.

Immediately after the train passes the operator throws his signals up to danger in the reverse order to that described. Once this is done they remain immovably locked until the train has cleared the next block, because the train protects itself by cutting off all current from them, the current being short-circuited by its wheels and axles.

By the use of this system it is possible to run limited trains at intervals of less than five minutes with speed and safety. It does away with the incessant messages which formerly passed between towers under the telegraph block in announcing the advent of trains and trying to clear the way for them. Better still, it insures that the track itself is in perfect condition and free from obstructions when the train is finally admitted to the block.

When a train approaches a block station the engineer need only note that the distant signal is at safety. If he has the distant signal he must of necessity have the others, and he can rest assured that his way is clear to the next tower, where the performance will be repeated.

Although this system is practically faultless, there is a possibility of danger, but it is far more remote than when no interlocking device is used. The possibility of danger arises when local freight-trains or switch-engines are working in the vicinity of the tower, and makes it necessary to have towers and signals partly under manual control at all points where important switches must be thrown, or at grade railroad-crossings.

The lever that operates the switch must be thrown by a man, but there are various automatic devices which guarantee the safety of the train while using the switch.

The expense of installation and maintenance of the controlled manual system is very great in comparison with the purely automatic block or with the telegraph block.

It requires a trained man at either end of the block, and maybe three on each end in twenty-four hours at a busy point, and skilled men are required to keep in order the complicated and delicate mechanism of the tower machine and the signals.

Nevertheless it is a truly great system of block signaling. According to some authorities it is the greatest in the world for the protection of moving trains.

On the main line of the New York, New Haven and Hartford, where the train-service between New York and Boston is practically as fast and certainly as frequent as that of any road in the country, the writer can recall no instance of a collision under this control between trains moving in the same direction.

It could not, of course, occur between those moving in opposite directions, as it is a double-track road.

Caused Mysterious Accident.

A side swipe which occurred under this system, with very peculiar circumstances, illustrates that absolute immunity from trouble has not been secured even through this apparently perfect train-control

A night freight-train was proceeding ahead of an express passenger-train, and at the proper time and place attempted to take siding to allow the express to pass. Before the conductor could back in, however, it was necessary that he call the tower, which he had already passed, by phone, and ask that the switch be unlocked.

The towerman complied, and the very fact that he did so set all signals behind the switch at danger, or at least maintained them in their then position of danger.

Opening the switch short-circuited the current, and the signalman in the tower two or three miles further west could not unlock them.

When the express arrived it was halted perforce at the tower—distant, home, and starter all being red. As the story goes the engineer of the express was informed by the towerman that the freight was taking siding below, and he was given a caution card to proceed.

His train collided with the freight, of which the engine and two or three cars were still on the main line. Fortunately there were no serious results.

The writer is not attempting to analyze this accident, with the details of which he is quite familiar, but only desires to comment briefly on some of its extraordinary features

Couldn't Determine the Cause.

There is no question apparently that the controlled manual block system performed its functions, because the express promptly drew up in front of the red home signal, and it was impossible for the operator to clear that or any of the other signals so long as the freight stood on the open switch.

If the caution card was given, as was stated by one of the parties to the contention, why was it given when the towerman knew that the freight was not yet in to clear? Or, if not given, is it likely that the engineer would proceed, even cautiously, in the presence of most binding rules to the contrary, and in the face of both home and starting signals at danger?

It was an extraordinary case, but at all events it does not seem to imply anything derogatory to the form of signal system under consideration.

The engineer in question is still in the service as one of the oldest and most valued employees, and so far as can be recalled no one was punished. It may be that the passenger train was given verbal permission to drag down to the switch, but this is unlikely, and the whole incident generally is involved in mystery

The automatic system, next to be considered, dispenses entirely with human manipulation of the signals, which are controlled entirely by automatic devices, actuated by the passage of the train over the rails, and is used for greater safety on stretches of track between block towers. The towers are placed only at points where switches must be hand controlled.

Track Circuit Is Simple Device.

In the automatic block the track circuit, which is the vital feature, is a simple electrical device. Its essential feature is a section of track, or block, insulated at each end from adjoining blocks. Each rail in the section is connected to the ones adjoining by bond-wires, for the purpose of making a continuous conductor from one end of the block to the other.

At one end of the insulated track section a battery is placed, the positive terminal being connected to one rail and the negative terminal to the other. At the other end of the section a relay is connected to the rails in a similar manner.

The current thus flows from the positive side of the battery through one of the rails, the relay, and the other rail, back to the battery. This system keeps the relay energized.

The relay is a development of the instrument of the same name used in the telegraph. It consists of an electro-magnet of the horseshoe type provided with an armature, and controls the signal by suitable mechanism at which it is placed. The armature is attracted to the magnet when the latter is energized, and is drawn away by gravity or by a spring when the magnet is deenergized.

When the circuit or block is clear between the battery at one end and the relay at the other, the relay by means of the attraction between the magnet and the armature holds the signal at the entrance to the block in the safety position.

It requires a force such as the energized relay to hold these semaphores in that position, and they swing to danger when no force acts on them, consequently any break in the circuit causes them to automatically come to the stop indication.

Wheels Short-Circuit the Battery.

Presume now that a train passes one of these signals in the safety position and enters the clear block. The moment that it does so the presence of any one of its pairs of wheels will short-circuit the battery at the other end, because the resistance through the wheels and axle of an ordinary car or locomotive is infinitesimal compared

with that of a relay of three and one-half ohms or more.

Consequently the relay is deprived by the wheels and axles of the current necessary to maintain its attraction for the armature, and the signal promptly rises to danger behind the train which it protects while in that block. When the train passes out of the block, conditions are at once restored; the circuit is reestablished, the magnet again attracts the armature, which pulls the signal down to the normal or safety position.

This system guards against any trouble occurring in a block supposed to be clear, such as a broken rail or the opening of a switch, because either would interrupt the current, and the relay could no longer perform its work in holding its signal at the proceed indication.

The automatic block, by means of placing the signals comparatively close together, allows a greater number of trains to run with a minimum of danger, and is therefore economical on roads with very heavy passenger traffic.

In the form generally used it has been elaborated to include two semaphores on each mast or pole at the block entrance. The upper one is for that block, and the lower gives an indication on the next block

Semaphores Must Be in Position.

For instance, should the top semaphore be at safety and the lower at danger, the train proceeds, but expects to find the next block occupied. Should both be down it affords the assurance that both blocks are clear.

This system is known as the "normal safety," for when a block is unoccupied the signal is in the safety position, but there is a further extension of the principle known as the "normal danger," in which the signal is always in the stop position until set at safety by a train approaching it. This the train cannot do if the block which that signal controls is occupied.

One of the advantages claimed for this form of automatic block is that the engineer can see the signal change, and another is that in severe winter weather the normal-safety signal might freeze in that position so rigidly that even when its relay became deenergized the weight would not be sufficient to pull to danger.

This, however, is unlikely, for its mechanism is well protected from the elements, and accidents from such a cause are extremely rare if not unknown.

The actual movement of the semaphore-blade or arm in this as well as in the normal safety is either through electric or electro-pneumatic devices, the latter being compressed air controlled by the action of the relay, magnet, and armature.

Two Kinds of Blocking.

Generally speaking, train-blocking is of two kinds, absolute and permissive. In the absolute system, when a signal shows danger or red, the train must come to a dead stop without passing the signal, and wait until it gets a clear indication. In the method of permissive blocking, after coming to a dead stop, the train may proceed under control, expecting to find the block occupied.

In automatic block-signal systems the practise generally is permissive, for if a signal were out of order and indicating stop, the line would be blocked until it could be repaired. The most common rule where automatic signals are used is to stop at a signal indicating stop, wait one minute, and then proceed with speed under control.

On those lines of the New York Subway which have automatic block signals, and in a few other places, trains are forbidden to pass a stop signal without first sending a flagman ahead. After waiting long enough for him to proceed a safe distance the train moves forward at low speed under his protection.

With the manual block system permissive blocking is an expedient to obviate the expense of maintaining short block-sections, and is ordinarily allowed only with freight and work trains, absolute blocking being enforced before and behind passenger-trains.

With controlled manual signals permissive blocking is usually forbidden, as the control attachments would be made useless.

There is another quite ingenious system known as the "staff," which is popular in England, where it was primarily developed. It is in limited use in this country.

It is an effective guarantee against any form of accident involving two trains, although it does not safeguard in the event of damage to the track.

The staff is simply a piece of wood

twenty-two inches long, suitably lettered, and when given to the engineer it is his authority, regardless of the time-table, to run his train between two points, say A to B.

At B he receives another staff for the section B-C.

This system, used for many years in Great Britain and in India, particularly, is being generally superseded by the electric train-staff.

The electric train-staff, of course, necessitates track-circuits, and all of the accessories of the automatic block, but it is no doubt the greatest safeguard yet devised for single-track operation. Possession of the staff gives absolute right to the block, which cannot be entered without it, and since there is only one staff a collision must necessarily be impossible.

Some very clever devices have been evolved to receive and deliver the staff while the train is in motion. This is effected by means of a post with suitable bars to support a staff fixed near the track, to enable the engineer of a train when passing at moderate speed to reach and take the staff.

Staff-cranes are also made to receive a staff from a moving engine. With suitable apparatus on the engine, staffs may be exchanged at very high speed.

Too Slow and Cumbersome.

Such a system, while being safe beyond any possibility of dispute, is slow and cumbersome, and it has made but little headway in this country. It works fairly well when the traffic is evenly balanced in both directions, but when it becomes heavier in one direction, complications are inevitable.

It is chronicled that great trouble was caused abroad for years following its introduction because the staff was not around when wanted, and quite often a train had to wait at one end of a section until the bit of timber was conveyed either on foot or horseback from the other end, perhaps five or six miles distant.

In order to prevent serious delays of this kind a number of weird ideas were advanced. One suggestion was that pneumatic tubes should be fitted between all signal-boxes on the line and the staff blown through to whichever end required it.

These are the salient features of block-system operation in its various forms in use to-day on railroads of the United States. As has been pointed out, all possess varying degrees of merit, and it is rather difficult to predict just which one will eventually supplant the others. It is believed, however, that the automatic block will be generally adopted. Its only real competitor is the controlled manual, and this competition cannot be serious in view of the comparatively higher expense entailed.

Operating a Maze of Rails.

After all, however, and despite the unquestioned ingenuity displayed in the various forms of train signaling, the writer firmly believes that the refinement of the art is exemplified in the perfection which interlocking has attained, as applied to large terminals.

All tracks look alike to the average individual, and their ends, rather than the means of reaching them, generally interest him most. Comparatively few, even railroad men whose duties do not bring them directly in contact with the interlocking system, give more than a passing thought to the intricate track approaches in connection with the principal passenger terminals of the country, of which Broad Street, Philadelphia; the Grand Central, New York; the Pennsylvania's Pittsburgh Station; the Union Depot, Washington, D. C.; the St. Louis Terminal, and the Boston South Terminal Station are prominent examples.

Although sufficiently confusing by day, the signal arrangement of any of these terminals should be properly viewed from the rear of a departing train after dark, when it will be rendered utterly incomprehensible.

The maze of tracks with their accessories have practically disappeared into the gloom, while from the masts and signal bridges flash a myriad lights in the vivid colors of red, green, orange, and purple.

Among these hundreds of indications where to proceed and where to come to an imperative stop, the bewildered observer seeks in vain for some guide to the general direction of the tremendous train movement around him, and views with increased respect the engineers who tread the labyrinth of rails with such apparent nonchalance and self-possession.

Should he secure the open sesame to the zealously guarded signal-tower, which

holds the key of this wonderfully ingenious combination, he would be amazed by its prevailing quiet and perfect system. There would be no disquieting clang of levers in evidence, as might be expected, because in extensive installations of the interlocking system the switch and signal mechanism is pneumatically operated and electrically controlled.

No conversation is apparent: nothing beyond the tower director's decisive announcement of the route to be "set up" through the yard when a train "rings in," followed by the click of the little cranks on the tower machine through which the various operations are effected.

The curious observer would note that the track model, conspicuously displayed for the information of the operators, faithfully reproduces in miniature the change made in any switch or signal, and would see the train under consideration deftly and safely make its way among maybe half a dozen others, all in motion, and all apparently in imminent peril of collision.

Even in a mind not susceptible of enthusiasm, it is impossible to withhold admiration for signaling which permits the handling of the enormous terminal traffic of to-day without the possibility of an accident.

Guides 826 Trains a Day.

In the Boston South Station, for instance, this is the problem which its interlocking is daily called upon to solve:

Into the cavernous maw of the train-shed, built over twenty-eight tracks, which looms up north of the tower, the director must pour 432 passenger-trains in twenty-four hours, and in the same space of time he must extricate the greater number of 444. All of this must be effected on the exact moment of the schedules imposed by the two railroads using the depot.

Stupendous as the safe conduct of such an enterprise may appear, it is far from being the limit of the tower's mission. There are also endless switching movements, necessitating changes in routes and signals; light engines to and from the roundhouses to be taken care of, and many "drafts," or strings of empty passenger-cars to be handled in and out of the train-shed.

In one hour, 5 P.M. to 6 P.M., on summer schedules, sixty-six trains depart and thirty-one arrive; a total of ninety-seven trains to be handled in sixty minutes, or an average regular train movement every thirty-eight seconds. Within the two minutes from 5.15 and 5.17 P.M., six trains depart and three arrive.

The average train consumes one and one-half minutes in passing from or to the station through the switch or interlocking system. Evidently the nine trains mentioned must be passing through it at the same instant.

The interlocking in this great terminal covers only twenty-two acres, but it includes fifteen miles of track, four miles of which are under the train-shed.

To properly protect this scene of such busy movement 137 semaphores, and the equivalent of 255 switches, all operated by a tower containing 143 levers, are required. The lever movements in the tower average 44,264 per day, and the daily movement of cars, trains, and engines through the yard is about 4000.

Twenty years ago it would not have been possible, with contemporary appliances, to have handled this volume of traffic in two days of twenty-four hours each, and even if effected in that time, the various movements would have been in constant peril of derailment or collision.

It was a long time before the sensible idea of having the switch and the signal indicating it work together dawned on the minds of those interested, and its simplicity is such that it seems amazing that it could be so long deferred.

Its first practical application was on a railroad crossing at grade, where the experiment was made of having the lever which dropped the signal to safety for one train to bolt lock the signal at danger for the train which might be approaching on the other line.

Men Could Not Shift Levers.

Interlocking spread rapidly and was applied generally at all junction points and large terminal yards. By 1890 practically all of these points in the country were so protected.

Such installation was termed the "mechanical system of interlocking," because the operation of the switches and signals, through proper connections with the levers in the tower, was dependent entirely upon the strength of the operator.

For quite a period this did not offer any

serious objection, but as the yard limits became enlarged, and the switches and signals so far removed from the tower, it was found that only a very strong man could shift the levers, and for only a few hours without relief.

Then it became necessary to put in two and sometimes three levers to do the work of one. In many instances the towers contained as many as 250 levers, requiring a force of fifteen men on each shift to operate them.

The electro-pneumatic system of the present followed quickly.

The employment of compressed air for actuating the mechanism of the switches and signals, in place of the weighty connections previously employed, was an idea so simple that railroad management generally marveled at its tardy appearance in the field.

It necessitates the use of only one-third of the number of the levers employed in the mechanical system, and entirely eliminates the question of distances in the operation of switches and signals. Furthermore it is so simple that its working principle, not its details, of course, can be grasped by a child

It is the system now in general use all over the country, and makes possible the prompt handling of practically unlimited traffic.

At each switch and signal is placed a cylinder designed to operate it. This cylinder is supplied with compressed air at eighty pounds per square inch from a main which extends throughout the entire interlocked territory, and an electric wire leading to the tower "machine" governs the admission of air to the cylinder.

The operator turns a crank, electrifying this wire, and the switch or signal movement immediately ensues.

The true mission of interlocking, whence its name, is to arrange the machinery for manipulating the switches and signals so that it will be impossible to display conflicting signals, and this is effected in the tower machine.

For instance, if twenty tracks lead to the train-shed there must necessarily be twenty different routes. When the switches and signals are cleared for route eighteen, projections on the levers which were operated to set this route engage and lock similar projections on all other levers, the movement of which might conflict with this route. This tells the whole story.

Infinite patience, to say nothing of skill, is required by those who plan and install such systems, both in the calculation of the various combinations and in the proper wiring to protect each of possibly two dozen routes.

Air-Whistle Sounds Warning.

There are twenty-eight tracks under the Boston South Station train-shed. The route to each, when set up, protects itself by locking in the machine every switch and signal at danger which might conflict because a safety indication was given.

As an additional precaution against the possibility of error, although only twice has its use been necessary at the South Station, is an air-whistle of enormous volume, mounted outside the tower, with its valve within reach of the director's hand.

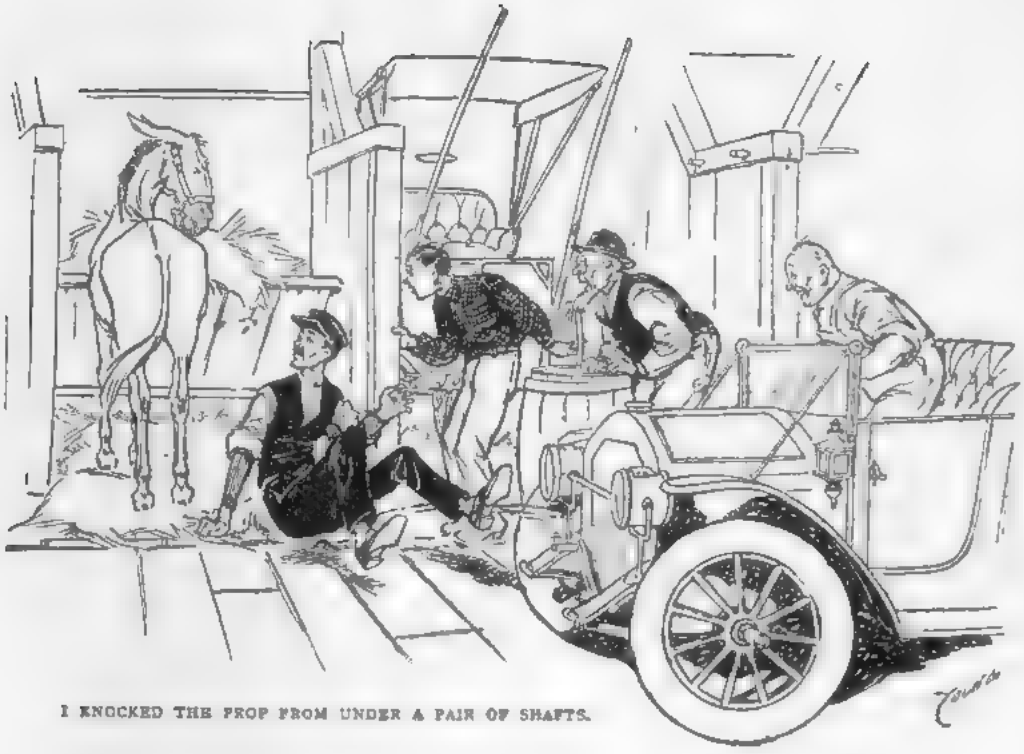
Should any confusion of signals occur, or, through the loss of a combination, a wild engine, or anything of the kind, should disaster be impending, the peculiar wailing note of this contrivance is intended as the signal for an emergency application of brakes to be made by every engineer whose wheels may be turning within the interlocked territory.

The traffic temporarily suspended soon permits the cause of the trouble to be located.

The general subject of railway signaling is broad and comprehensive. It properly includes all signals used on the railroad, whether lamp, flag, hand, air, and steam-whistle, train-marker and classification, train block signals and interlocking.

Train block signals and interlocking are by far the most important and interesting. Information concerning them is meager and largely meaningless save to those versed in the craft, and it has been the aim of the writer to present the matter in a form so divested of technicalities as to be of real assistance to railroad men or laymen.

This is the second of two articles on the History of Railway Signaling which Mr. Rogers prepared specially for the "Railroad Man's Magazine." Beginning with the July number, the "Help for Men Who Help Themselves" department will be devoted to a valuable series on mechanics. The first article will be entitled "Steam."



I KNOCKED THE PROP FROM UNDER A PAIR OF SHAFTS.

Flagging Easy Money.

BY H. A. HORRIS.

Rip, Dude, and Ham Decide That It Is Necessary to Organize the Argentine Pneumatic Joy Company.

DUMONT EDISON SMOOTH in his danger-colored, pneumatic joy-car would have arrived in Argentine right on the local's time, if Monk had kept the local on its schedule. As it was, Dumont Edison Smooth had arrived, registered in, backed the buzz-engine into Tim Fitzgerald's livery-barn, and was passing out a shipment of fancy literature down at the post-office before Monk pulled the whistle four times to let Ike Roberts know that the west-end local wanted instructions as to where it might rest its weary wheels.

We picked up a couple of empty box cars at Billtown, where we caught the first glimpse of Dumont Edison Smooth. Billtown has one narrow-gage street along the railroad, and on market-day all the plow-pilots in Johnson County tie their hay-burners in front of three stores.

When this red automobile came *honk-honking* down the clay ballast boulevard and went *hank-hunking* out of town over the railroad crossing with a festive switching of its rear wheels, all the horses at the hitching-rail tried to break into Stump Plumber's barber-shop.

When the red wagon disappeared down the road toward Argentine, Billtown was full of bad language, excited horses, and the odor of gasoline. Monk Monkhauser, with his mind distracted for the moment by the sight of so much luxury on wheels, failed to ease off on the throttle in time. As a result we picked up two cars at Billtown, and Dumont Edison Smooth beat us into Argentine.

"Picked up" is correct. We picked up the draw-bars and loaded them into the car, dumped the end-sills off the right-of-way, jacked up one car and put it back on center, then went out on the main line and pulled by the switch, backed in, and chained the two bad orders behind the dog-house.

The first car wasn't the only thing that was jacked up, as Monk will tell you.

After Monk and I had finished our debate I gave him the high sign, and he pulled out so fast that I had to kick my heels on the side of a box car half-way back, rather than wait for the caboose; and we traveled into Argentine as if that engine was burning radium for fuel.

After I had made out my delay report and explained to the chief despatcher that chaining two cars behind the caboose isn't exactly like making dots and dashes on one of those tickers, I beat it for the post-office across the street to see what was drawing the crowd. Monk was already there.

"Ham," he said as I slowed down, seeing how the sidewalk was blocked, "take a squint at this, Ham."

I was willing to let bygones be bygones as long as Monk didn't do it again, so I passed up the little affair at Billtown and took a squint at the literature.

"Where did you get this picture-book?" I asked

Monk pulled a neat little clearance-card from his pocket. There, in real printing that stuck up was, "Dumont Edison Smooth, general sales-agent." In one corner was a picture of a wild man wearing a pair of goggles, hanging by his toes to the brake-wheel of a pneumatic joy-cart as it went around a ninety-degree curve on one wheel. It was an exciting little card, I'll say that much for it.

"Here we are riding the soft side of a pine board three feet from the boiler-head, always going and never getting any place, while some people back in the leather-work of an automobile stick a two-bit cigar in their face and go bouncing around in one of these *chug* engines as if they owned fifty-one per cent of the preferred stock in the United States government. And why?"

"You mean how?" I suggested.

"I said why, and why I mean," said Monk, reaching for his revolver-pocket, where he always carried a quarter section of plug cut. "Where does this railroad game lead you to? When you've made a round trip you're right back where you started. Now, if we got into the automobile business, the future is before us."

"Correct," I admitted, "and the past is behind us. We are just between stations, so to speak."

Dumont Edison Smooth, who had been delivering a lecture on the part the automobile had played in the back-to-the-farm movement, edged through the crowd and, quick to recognize men of intelligence, boarded our talk special.

"Are you gentlemen interested in automobiles?" he asked, handing each of us a piece of bell-cord done up in a natural-leaf wrapper.

"Well," said Monk, "if you can show me where there's money in it, I might be willing to get a divorce from the Baldwin hog I married two years ago."

"As for me," I volunteered, "I've been trying to give up a job of being stepfather to a caboose with flat wheels for a year; if you've got anything that listens like real money, I'm a good listener."

"Money!" exclaimed Mr. Smooth. "Why, every time that motor *chugs* it means a dollar—"

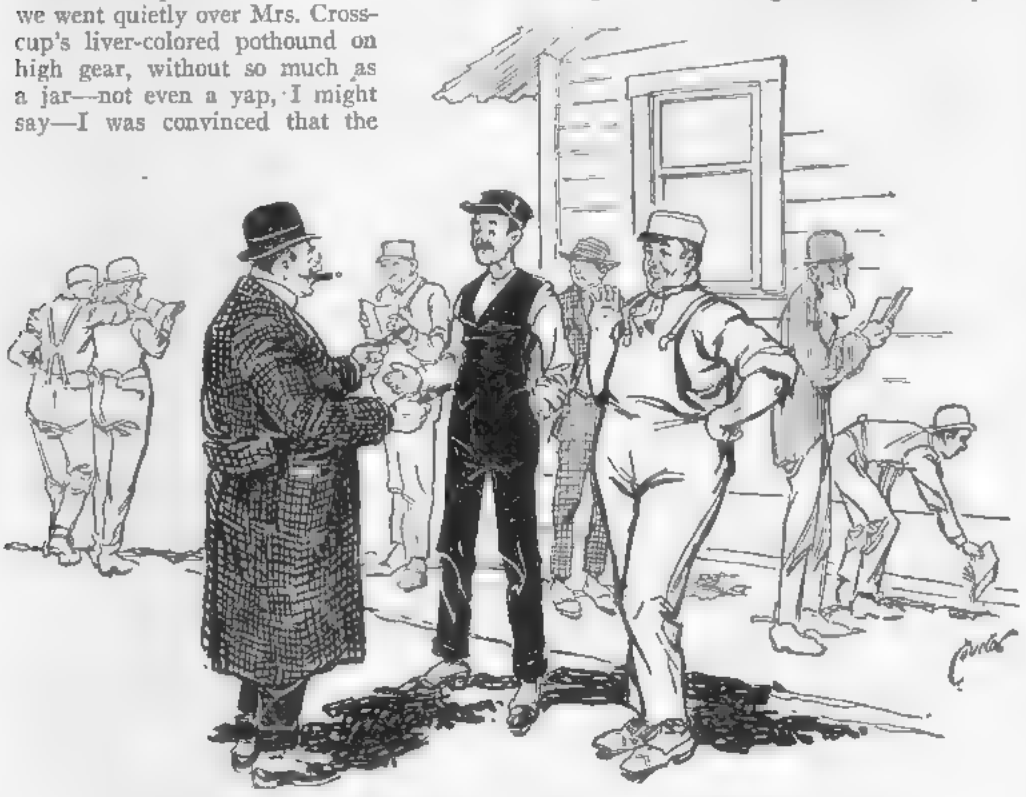
"Coming in or going out?" asked Monk.

"Going in," replied Smooth. "In five years from now every man, woman, and child in the United States will own his, her, or its automobile. This invention has revolutionized transportation. Ten years from now railroads will be a thing of the past, and the thousands of men who have depended upon them for a mere existence will have joined the ranks of the unemployed, unless they realize the situation at once and prepare themselves for other callings. Money? There is a fortune right here in Argentine for the man who is willing to ride out and pick it up."

Thirty minutes later Monk and I had running orders to meet Mr. Smooth at the Standard Hotel with a wait order of forty-five minutes for supper. We dined, we smoked, we climbed into the gasoline coach, and went bounding from hilltop to hilltop,

skipping about the village streets, trimming the whiskers from the lamp-posts and inspiring belated pedestrians to break the long-jump record in reaching the safety of the sidewalk, and all the time Mr. Smooth kept the throttle open on his talk until he'd made a round trip from A to Z in Noah Webster's dictionary.

It was a perfect demonstration. When we went quietly over Mrs. Crosscup's liver-colored pothound on high gear, without so much as a jar—not even a yap, I might say—I was convinced that the Beatsem automobile was not only the fastest thing on four wheels, but a blessing to humanity.



HANDING EACH OF US A PIECE OF BELL CORD DONE UP IN NATURAL-LEAF WRAPPER.

I would have gladly killed the hound just as dead, but not quite so suddenly perhaps, if he had not been so long-winded. He and I did light mileage around my rooming-house until I was out of steam, him ducking the corner every time I got set to throw my sealing-iron at him; and then, just to show me that he didn't bear me no ill-feeling, just as soon as I was back in bed, he got beneath my window and lifted his voice in song.

I never was fond of music.

Mr. Smooth had me for him the very minute I realized that the pothound's tail wouldn't wag again; but Monk—well, when Monk once gets on center you have to get a pinch-bar and work him over one way or the other.

"I reckon that's a good car, all except the color," said Monk when we were back in the hotel vestibule. "Ever since I went around Holiday curve and found red lights as big as tubs staring me in the face just before I tried to pass a packing-house special without using a side track I've been awful hostile to red."

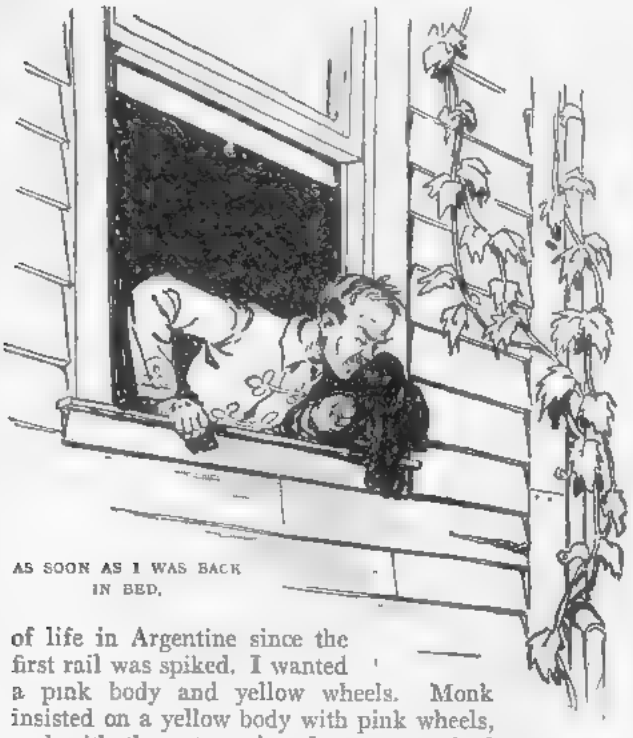
"But," said Mr. Smooth, "we can give you any color you want. We can divide it up—body green, wheels yellow, any combination you want."

"Make mine pink," I interrupted.

"Pink—pink!" sputtered Monk. "You ain't buyin' baby ribbon. What we want is yellow. A real yellow yellow."

"How would a yellow body with pink wheels fill the bill?" suggested Mr. Smooth.

This suggestion plunged us into an argument that for a time threatened the furniture, and certainly cracked the peace and dignity which had been one of the features



AS SOON AS I WAS BACK IN BED.

of life in Argentine since the first rail was spiked. I wanted a pink body and yellow wheels. Monk insisted on a yellow body with pink wheels, and with the vote a tie, of course, we had to arbitrate. Mr. Smooth was one of the best little arbitrators ever seen in Argentine.

"Both of those colors are real colors," he said; "I suggest that you paint the body up to the dash with yellow, make the wheels pink, and have the head-end painted with a mixture of yellow and pink, which would give you a delinquent orange."

As "delinquent orange" didn't mean anything more to Monk than it did to me, we agreed that it would be all right, and we were just in the act of signing up a contract for the first pneumatic joy-cart ever bought in Argentine when Monk came near spoiling the whole deal.

"By the way," said Monk just as he was holding up the pen to make his mark on the dotted line at the bottom of a lot of printing, "what is an automobile good for outside of hunting chickens?"

I could see that Mr. Smooth was choking up in the stack, and for a moment I was afraid he was going to annul our rights and call the deal off.

"Good for?" he repeated. "Good for? It's good for anything and everything. Out in Kansas the farmers run their windmills with them, in Nebraska they plow with them, in the Far East they have them for pleasure only. All the really swell people use them for pleasure. Here in Argentine I suggest that it would be very profitable to establish a 'seeing Argentine' company. Charge one dollar a passenger, and make a tour of all the interesting points in the town. Each tour will last an hour. You can carry four passengers beside the chauffeur, that's four dollars profit each trip; twelve trips a day is forty-eight dollars a day. Three hundred and sixty-five days a year, forty-eight dollars a day—there you are, figure it up! After the first year both of you can retire from business."

"This furniture-car full of one-dollar bills on the small investment of how much?" I asked, recalling the fact that we had not inquired how many pieces of silver we would have to exchange for the mint on wheels.

"Four thousand dollars for the big touring-car," replied Mr. Smooth in a low tone. "A mere nothing, and the first mont—"

It took a bucket of ice-water and three Manhattan cocktails to restore Monk from the state of coma into which he had fallen. When reason seemed to have his trolley back on the wire the first words Monk said were bitter—I might say they were unreasonably caustic, almost sarcastic; if not sarcastic, certainly irrelevant.

"Jump, Ham! Jump, quick!" he whis-

HE GOT BENEATH MY WINDOW.

pered. "I've been disappointed in love. She is trying to sting me for alimony."

We got Monk quieted down about midnight, and found that Mr. Smooth had been speaking of a "limerzine" body, which I understand is a fancy automobile with a Pullman finish and an umbrella-holder and hat-rack in the hall. Of course when he realized that all we wanted was a neat little day-coach motor wagon the price wasn't quite so strong.

We found that twelve hundred dollars would buy a close-coupled Beatsem touring-car, guaranteed to climb Pike's Peak on high speed. After waiting the rest of the night for the bank to open, by signing up certain papers, we borrowed the four hundred we lacked and purchased ourselves a permanent place in the history of Argentine.

During the thirty days we waited for the buzz-engine to arrive in Argentine Monk and I didn't miss a single trip on the local, but we read all the automobile literature we could get. We made a list of automobile terms, and, believe me, at the end of the second week I could talk the language right with the best automobile man in the country.

Ike Roberts, when he was an engine foreman for old Dan Vaughan on the Union Pacific back in Kansas City, saw a whole flock of automobiles. It seems that a friend of his had a job chauffing for a taxicab company, and Ike was the best-informed automobile man in Argentine.

He thought he had it on me, until one night he made a fool of himself right in front of a large audience of switchmen down in the shanty.

"Say," began Ike, "what kind of gasoline engine are you buying, Ham, a compound or simple?"

"We're getting a four-cylinder, valve-in-the-forehead motor with a direct shaft-drive," I replied with the same free way I'd asked for my way-bills.

"Yes," says Ike, "that sounds like a limited going over a bridge. I suppose it must be some real wagon."

Being thus encouraged, I started in to show Ike that I knew something beside running a local.

"It's the best automobile made, Ike. Very expensive car. It's a thirty-four horsepower, three speeds going ahead and two backing up."

"It can't be done," said Ike.

"But it can," I insisted, perhaps a trifle rudely. "That isn't all, Ike. It has a wind-shield and a speedometer with a differential gear. Not only that—"

"But what I want to know is this," said Ike. "What makes the thing go?"

Of course, I should have asked Mr. Smooth that question when he was explaining the machine; but, having neglected to ask, I could not admit it to Ike.

"So you don't know," I said, knocking an imaginary cinder off my sleeve. "It's the pneumatics in the tire. You see, Ike, it's like this. You take two bits' worth of gasoline and strain it into the tank, being careful to spread some of it on the floor of the car. You then get around in front of the engine, take the crank firmly in your right or left hand, and make a motion like running a hand organ. There will be a sound like a hiccup. This sound starts the gasoline to evaporating through the radiator, which in turn is joined to the carbureter which regulates the amount of air in the train-line, so to speak. Having tickled the carbureter, you will see that the potential energy of the spark-plug is headed in on the differential gears which govern the steering knuckles in the rear axles. When these are in action there is a peculiar whirring sound, which seems to frighten the speedometer so that it will not exceed the speed limit. Of course in Argentine, where life is fast and there is no limit to the speed, one does not need the speedometer except for one's own satisfaction. Having started the speedometer, the wheel-base is shortened, and quite naturally the wheels go round. In doing so the car goes ahead or backs up. You always have two guesses as to which way it is going."

When Ike and the gang found out that I really knew all about the technique of automobiling they didn't try to show me up, and Monk and I became the topic of conversation at the roundhouse, the agent's office, and down at the yard office.

We were well advertised by the time the bill of lading for that car came in, and every one who wasn't out on the road that day was down to help us unload the rubber-tired cab.

They sent a man out from the factory to see that we got going right. He explained all about the fuel, and took Monk and I out for several practise spins. In less than a week we had her broke in and I could drive her just as well as Monk, in spite of the fact that Monk was an engineer.

The traveling engineer went back to the

factory, and the very next day we passed out the literature for the first trip to be made under the auspices of the Argentine Pneumatic Joy Company, of which Monk Monkhauser was president and treasurer, and Ham Hamilton, being none other than I myself, or I might say, me in person, was vice-president and general manager.

We advertised the first trip for Sunday, as the local didn't run that day, and Monk had suggested that we had better confine our early efforts to Sunday until we were sure that business warranted our pulling the pin which connected us with the regular pay-car

Sunday was a beautiful day. Argentine appeared at its best. In the distance one could see the grim stone of the smoke-swept roundhouse, and half a league beyond stood the red water-tank in all its romantic surroundings.

Both of these points of interest were on our regular run, as was the home of Lizzie Lickenwater, the one woman who had lived in Argentine thirty years without having made a trip in matrimony.

We had rented a stall in Tim Fitzgerald's livery-barn as the official general office and garage for the automobile, and our literature announced that the first passengers would be allowed to board the train at the general office, thereby g e t t i n g extra mileage of a block and a half from Tim's place to the post-office.

When we arrived at the garage there wasn't so many people there but that we could get into the place without police protection, and in order to be sure to have the car filled as we rolled up to the post-office we prevailed upon Jimmie Pilsberry, the night call-boy, to ride in the rear seat. Jimmie is an avaricious little wretch; the idea of insisting on a dollar just to ride a block and a half! He said it was worth more, but he'd reduce the price to show his interest in a home project.

Monk and I shook dice to see who would drive the pneumatic joy-cart on its first trip. We played the ace for low, and in three shakes each of us held a one-spot. Somebody had to drive it, and Jimmie Pilsberry was too young; so I agreed that if Monk would drive the first half of the trip, I'd relieve him on the last half. With that he climbed into the car, took the steering-wheel firmly in his two hands, and I grabbed the crank to start the engine.

The first time the crank went half-way and came back, putting me over in the next stall with a flea-bitten gray mule that had a nasty habit raising both feet at the same time. In getting away in dignified haste I knocked the prop from under a pair of shafts. One of them came down on Monk's head, and the other made a map out of the glass wind-shield.

Monk got awfully excited; but, knowing his nature, I didn't pay any attention to him and carefully approached the crank again. The first time I jerked it around she caught the cable, and it sounded as if Tim's livery-stable was falling down all at the same time.

In the excitement Monk didn't wait for me to get from in front of the cow-catcher before he opened the throttle, and the next thing I knew I was jammed against the side of the barn and that angry pneumatic wagon was doing its best to hook me with its radiator-cap.

"You-all had better lead it out of the barn," exclaimed Jimmie Pilsberry as he climbed out over the back seat. "I r e c k o n they've unloaded a balky one on you."

Just for that remark Monk canceled J i m m i e's contract; and the night call-boy, having already pocketed the dollar, expressed some satisfaction that he was to be allowed to walk to the post-office.

Monk and I coaxed the bus back from the wall, twisted the wheel until we had it headed for the double doors leading to the street, and then we got behind and shoved.

It rolled out just as if it had been trained to do the stunt in a circus. Once in the open, with nothing to bother us but the houses, it was an easy matter to get the thing started.

"Have you got a clearance-card?" asked Monk as he grabbed the Johnson bar and gave it a shove. "Where's our first meet?"

Monk had pushed the wrong bar, and before he could throw on the air with his foot we had backed up into Tim Fitzgerald's livery-barn and were just where we were when we started.

"She's a good little backer," says Monk.

"Better than that," I admitted. "Maybe

we'd better turn her around if we want to get to the post-office before noon."

"No," says Monk, "I was just trying her out. Come on now, let's go."

With that he throws the other Johnson bar over, and with a heave and a yell—with all the pneumatics in her dear little, yellow, pink, and "delinquent orange" body atremble—she started.

"Where are you going?" I asked Monk rather hurriedly when he failed to turn with the street, but kept straight out from the door.

He didn't answer. There was a smashing sound, as if we had cornered a box car, and the next minute we were jumping from furrow to furrow in Pap Rawson's potato-patch with a string of picket fence occupying the rear seat.

"Monk," I said, gentle like, "I don't believe I'd do that."

"We're awful late," says Monk. "I thought we could cut across the lot here and save time and gasoline."

As we hit the other fence just at that moment we refrained from further conversation.

When we came through the second section of fence Monk got awful busy with the wheel, and brought the car around onto the street. As we were rolling along toward the post-office Monk began to smile.

"Say, Ham," he said as we topped a stepping-stone at the crossing, "I've been running an engine so long I just forgot that you had to guide one of these things."

I SAW PAP RAWSON COMING TOWARD US IN A HOSTILE ATTITUDE.

"That's all right, Monk," I replied. "We are within a car-length of the post-office; you had better slow down."

"Yes," says Monk. "If she stops like she starts, we'll have a merry time."

She stopped like a perfect lady. If she had been at the head of fifty empties, there wouldn't have been enough of a jar in the caboose to spill coffee from a teacup. That stop made an impression on the spectators, too. Ike Roberts said afterward that, judging from the way Monk stopped that car,

he was almost tempted to believe that he had meant to do it.

I had planned to deliver a speech from the rear seat of the automobile. My subject was the great progress Argentine might expect since the organization of the Argentine Pneumatic Joy Company, but after unloading the picket fence I looked down the street and saw Pap Rawson coming toward us in a hostile attitude and my better judgment prevailed. Instead, I held the gate of the automobile open and called to Ike Roberts and an engine foreman by the name of Snyder.

"Come on," I said; "the first ride's free."

Snyder bolted, but I grabbed Ike before he could get away. After he was once settled on the cushions Sandy Smith took his nerve in both hands and volunteered to act as ballast. The crowd cheered him wildly. Jimmie Pilsberry's piping voice did not escape me.

"We won't miss Sandy if you-all don't get back!" yelled Jimmie. "There are seventeen Smiths in town without him!"

The crowd cheered again.

As Pap Rawson was but half a block removed, wearing a heavy walking-stick, I hastened to the starting-crank, whirled it around, and was gratified—and I might say well pleased—when the motor began to hum in a loud, bass voice. I jumped from in front of the machine, cried "All aboard!" and made a grab for the wagon as it shot by.

We were off, no more than a car-length in front of the owner of the potato-patch.

Life is but a fleeting dream; when you put pneumatic tires on it's even more fleeting. We had planned to drive about the village for advertising purposes; but when it came to turning the first corner, Monk thought the speed was a little fast, and we kept straight ahead.

In five minutes we were beyond the whistling-post and going so fast through the open country that a wire fence looked like a solid wall of sheet-iron.

We came up behind Dan Miller's milk-wagon, and gave him three *honks* to get off the right-of-way. His yellow ponies didn't need but two *honks* before they had most of the roadway whitewashed with all that was left of the morning's milk.

In turning out a little to get by, the buzz-wagon started a rabbit; and if Monk hadn't slowed down a little we would have run it down. As it was, all the wheels missed it, and after the poor thing tried to run along beneath the rear axle for a quarter of a mile, like a dog beneath a prairie schooner, Monk opened up. The last we saw of it it was just jumping up and down in the middle of the road.

When we passed Barber's farm those two shepherd-dogs started out to bark at us. By the time they reached the road we had been by so long that they bit Barber's hired man, who started out from town the next morning. In ten miles not a chicken got away. We were certainly traveling.

Fifteen miles from Argentine the road runs between two hedgerows, or two hedgerows run along the road. The road is narrow. I might say that the hedges are close together — so close, in fact, that two Missouri mules pulling their tonnage of hay occupy the greater portion of space between the two hedges.

This is something which is not taken into account by the authors of automobile literature, so one cannot blame Monk for being ignorant of the proper method of procedure.

Two mules coming west; one yellow, pink, and "delinquent orange" automobile going east; a hedge-fence on either side of the road, and the mules backed up by a ton of hay. The answer is very simple. In this case the combination equaled bankruptcy for the Argentine Pneumatic Joy Company.

It seems that Ike was first to realize the significance of the situation. As we approached the mules he grabbed me by the shoulder and cried:

"Pull the pin, Ham! Pull the pin!"

I did my best. I pulled everything in sight, including the headlight and my hair; but it was too late.

The mules went onto their hind feet, and put their front ones up as if ready for mortal combat. Monk gave the steering-wheel a final twist, and the next thing I knew there I was in the midst of a herd of hedge-balls. From a distance you couldn't have guessed which of us had grown there, I was so firmly pinned to the limb.

I looked over the scene below me. Ike Roberts had jumped before we hit. Monk, brave little Monk, he had held his hand on the throttle to the last, seeing as how he was in behind the steering-wheel and couldn't get out until I, who had been sitting beside him, moved over.

The car had put her front end into a ditch, and her rear end had kept on coming until it reached the hedge. Ike was a car-length back, standing in the middle of the

road, shaking his fist at a load of hay which completely marred the perspective beyond us.

The load of hay was moving; it didn't so much as look back. Monk — it took me some time to locate Monk. He was through the stem, and I dropped to the earth on the side occupied by Monk

"Monk," I said, doing my best to be kind and gentle with the erring, "Monk, I don't believe I'd 'a' done that."

IT WAS ONLY I WHO PICKED A THORNY PATH.

hedge fence, minus half his clothes. He had alighted on his head, and consequently wasn't much hurt. It was only I who picked a thorny path.

Ike got a long pole, knocked me off of my

"No, I don't suppose you would have," says Monk, arranging the ribbon shirt. "Like as not you'd have gone into those mules head-on and let them scratch the paint off the head end with their feet"

"But what happened?" I asked.

"That hay-pilot didn't have out a flag," said Monk. "He didn't even give us a slow-sign; there wasn't a torpedo out, of course; I thought he was in the clear. When I get right onto him I see he's out on the main line, and hasn't even lined up the switch for us. What could I do?"

"Is Sandy Smith on your side of the fence?" asked Ike.

"Smith?" grunted Monk. "Say, Ike, don't worry about Smith. When I was doing the double flipflap over the apex of this hedge-tree I saw Smith lighting on his feet on the top of that load of hay. I was thinking how some people always grab the soft snaps."

"Well," says I, knowing that there was work for willing hands on Ike's side of the verdure, "come on, Monk, we'll have to pull the car out and see what we can do for her before starting back home."

"No! No, no, Ham! You mean well, I guess; but you don't realize what you ask," said Monk, holding up his hand. "I'm just as close to that benzin buggy as I'll ever be again. Do you see that farmhouse over there on the hill? Well, I'm going right over there and see if I can get some one to push me home in a wheelbarrow. When I get back to Argentine I'm going right over and report for duty, and from now on I'm not going to ride on anything that don't have a flange on every wheel. I'm going to do all my runnin' on rails, for when you're on a railroad-track there you are; but when you're hop-skippin', *honk-hunkin'* around the country in one of these careless speed-wagons — one minute you're in the road, and the next minute—where are you?"

With that Monk went limping away over the meadow, leaving the world to darkness and to me and Ike.

A week later I sold the pink, yellow, and "delinquent" joy-bus for eight hundred dollars to a young fellow who had large feet and a small head. Sold the car on the hoof, so to speak, meaning just as she stood, minus one wheel, a radiator, one front seat, a wind-shield, a headlight, and a few other little items.

I was satisfied with that day's work; so was Monk. It left us with four hundred dollars minus and a lot of experience that we couldn't use on a railroad system, and the next morning when that little Pilsberry kid sticks the call-book under my nose for the local west I signs it in a bold, determined hand, "Ham Hamilton," and then, after reading it over and marking in the time, I underscord the "Ham."

WOODEN AND STEEL CARS.

SINCE railway companies have entered seriously into the practise of introducing steel cars, the people interested financially in the material used in the construction of wooden cars have been spreading predictions that steel cars would prove more destructive to human life in case of such accidents as collisions than the wooden cars, whose days seemed to be numbered. The theory advanced was that the steel cars would buckle up like a collapsed bird-cage and that the unfortunate inmates would fare worse than passengers do in a wooden car that has met with a collision. With certain limitations, wooden cars can be made as strong to resist shocks as steel cars, but the mere resisting shock without collapse does not cover the case. The fatal accidents in wrecks of wooden cars have not been due so much to the vehicles collapsing and squeezing the inmates to death as it has been by flying fragments of the wooden cars acting as murderous missiles no less dangerous than a gun shot. Horrible results have been due to wooden cars catching fire and burning up the passengers, but such accidents, although appalling, have not claimed so much human life as the splinters that spread disaster inside a fractured wooden car.

Theorizing, concerning the difference of behavior of a wooden and steel car in a wreck, is not of much practical value; but unfortunately during the last month there have been several very serious accidents to trains consisting of steel cars from which we can compare the relative value of the two species of cars so far as the safety of the passengers is involved. In one case, which may be considered representative, a fast express train was derailed through an obstruction on the track and all the cars were hurled down an embankment thirty feet. An old-style train would have been utterly wrecked by such a fall.

This modern train of steel cars, to the contrary, held together marvelously. None of the cars buckled under the tremendous twisting strain and impact, and the only damage to them was that the trucks were driven through the floors in two cases. Only three passengers were killed, and half of the passengers were not even slightly injured. There was, of course, no fire, and considering the character of the accident, the number of casualties was exceedingly light. It would seem as if the all-steel train had gone far toward proving its value as a safety appliance of the first rank.—*Railway and Locomotive Engineering.*

HOW TO INVEST YOUR MONEY.

A Plain-Talk Series of Articles Aimed at the Railroad Man's Purse.

II. — Postal Savings-Banks, State Savings-Banks, and Similar Institutions as Depositaries for Earning Interest on Your Nest-Egg.

BY CHAUNCEY THOMAS.

SAVINGS-BANKS is the subject under discussion this month. Last month we told just why no man can reasonably expect to get more than four per cent interest on his money, because over half the investments of the world yield an average less than four per cent, yet are directed by the finest of financial minds.

We learned also that when a man's chief aim is to increase his principal by selling for more than he buys, he is speculating; that when he seeks first to have his principle as safe as is possible, no matter how little interest it pays, then he is investing.

With the fact in mind that the three greatest banks in the world —the Bank of England, the Bank of France, and the Bank of Germany, the three greatest financial concerns on earth that set the pace for all the business of the world—cannot earn over four per cent interest, we will understand why a railroad man cannot expect to get more on his money in this country without serious risk of losing it entirely.

The four safest investments are savings-bank accounts, life insurance, bonds, and real estate, but each must be of the very best grade, otherwise they may, and very likely are, traps to rob a man of his earnings.

For small amounts of money—anything under $1,000—perhaps the savings-bank is the best of all investments. But it takes more than the sign "Savings-Bank" to make a savings-bank, and a railroad man had better bank by mail than trust his earnings to a local concern labeled "Savings-Bank," provided he lives in a State that practically has no savings-bank laws.

I have in mind one alleged "savings-bank" in a certain State that paid a very high interest rate, but when it broke the examiners found that the bulk of the depositors' money was invested in promoting telephone companies in a city nearly two thousand miles away.

Now, telephone securities may be very good and may be very bad, depending on circumstances; but surely to promote private interests with the money of savings-bank depositors is not what the railroad man wishes done with his life earnings.

All national banks are practically safe,

because they are not under State control at all, but under the direct and rigid supervision of the United States government, just as are the postal savings-banks; but, on the other hand, State and savings-banks in many States are almost private concerns, as free from control as the corner grocery-store.

Many are honestly managed, and some are not; and the railroad man would do well to take no chances, but to inquire very closely into the laws of his State concerning savings-banks before trusting his money to them.

If he finds that the State banking laws are very strict and carefully enforced, then he is practically safe; but the more elastic the State banking laws, the less inclined should he be to trust State and savings-banks in those States.

Best Savings-Bank Laws.

The best savings-bank laws are, perhaps, those of Massachusetts. New York is a close second. These two sets of laws are generally considered the best in this country; but from this no one is to infer that the savings-banks of all other States are not as near perfect as possible.

All that is stated here is that Massachusetts and New York are generally considered the best, that a few States have very poor or almost no savings-bank laws, and that the other States range in between, some quite as bad as the worse, with some nearly as good as the best. It is a delicate matter to discuss in detail, but this is a pretty safe rule to follow in regard to savings-banks: the older and larger the savings-bank the better it is till it ranks with those of Massachusetts and New York

The safest banks in this country are, of course, the postal savings-banks. They are the result of a nation-wide demand for an absolutely safe bank within reach of every citizen, no matter how remote from a city or how small his account, that forced the government to create them. They were made for safety and convenience rather than for profit, hence they pay only two per cent interest.

The honor of the United States government is publicly pledged to see that no depositor in a postal savings-bank ever loses a cent of his principal, or of his two per cent interest. Money in a postal savings-bank is as safe as a government bond, and in some ways even safer, for this reason: to get a government bond a man must buy it on the open market, as a rule, and the public market price constantly goes up and down for government bonds just as for everything else.

When a man with his money in government bonds wants his money in a hurry, the price of government bonds may be less than the price he paid for them, hence he has to sell at a loss

But one can always get his money from a postal savings-bank on demand, even right in the middle of a terrible panic when government bonds, for a day, or even an hour, might be selling for two-thirds of their real value. A postal savings-bank account is just like a post-office money-order if the money-order should draw two per cent interest.

For safety of principal, the postal savings-bank is probably the safest in the world. Behind it is the public faith and financial power of the richest government on earth—the United States. European savings-banks are just as honest, but their governments are not as strong, and a European war might suspend payment on foreign savings-bank accounts indefinitely.

Solidity of Postal-Banks.

But not so with those of the United States. No nation can invade this country as Germany invaded France or as France invaded Germany a century ago, nor can any nation cause a financial drain on our fields and factories and wage-earners—from whence comes all national wealth—and suspend payment on the deposits in an United States postal savings-bank.

If any man wishes to learn more about postal savings-banks, all he has to do is to ask the nearest postmaster, who will supply him with all printed forms and other information, and who probably can open a postal savings-bank account for him then and there.

Ten cents is all that is needed to open a postal savings-account. No references nor introductions except the deposit, are needed.

When one begins with ten cents a card is issued, and on this card are stuck postal savings-bank receipts—similar to postage stamps—till the amount of one dollar is reached. Then the card is exchanged for a regular savings-bank book.

Any one can open an account for any

amount between ten cents and the limit of the deposits for the month, details of which the postmaster will supply on request.

When any person has one hundred dollars or more in a postal savings-bank, he can exchange his account for a postal-savings government bond paying two and a half per cent interest, just one-half of one per cent more than the account pays.

This provision is made to encourage the holding of government bonds by the people of this country in small amounts for two very good reasons: it tends to encourage savings, and it keeps the money of the uninformed out of the hands of the "get-rich-quick" sharks. If a man does not know what to do with his money, does not know who or what to trust with it, his one best move is the postal savings-bank.

But if a man has a little more faith in his own judgment, or understands financial ways somewhat, then he can get practically as much safety and almost half as much again in interest by putting his money into some of the best State savings-banks. These pay from three to four per cent interest, and in half a dozen States are nearly as safe as the postal savings-banks.

They are not quite as safe, remember, because if they were, paying more interest as they do, they would make the postal savings-banks impossible.

Banking by Mail.

If we reckon the postal savings-bank safety at 100, then the safety of the best State savings-banks in this country would be marked from 90 to 95—much as we were "marked" for our lessons in our school-days.

There is an easy way to pick out one of these State savings-banks. You may have to send your money by mail, through the post office of course, but that is an easy matter concerning which many first-class savings-banks have made every arrangement. Perhaps fully $1,000,000,000 is handled by these savings-banks every year by mail.

To find one of these banks, write ten letters to various banks asking for a list of what they consider the ten best savings-banks *outside their own State*. Enclose a stamped envelope, of course, and better address it to yourself, so that no mistake will be made in reading your handwriting.

Banks, as a rule, are glad to answer such questions, as it aids banking in general; but, of course, every bank that answers you will no doubt suggest that the best savings-banks are in its own State. Nevertheless, they probably will mention other banks of the highest standing in other States, as you requested.

Now, compare these answers, and take the savings-bank getting the highest number of votes, so to speak. The chances are almost certain that you will land in one of the best savings-banks in this country. By this method you find how a bank stands in the opinion of other banks, and banks watch each other like hawks, so as to weed out the poor ones, if possible.

Bankers Give Information.

This method of selecting banks is followed by thousands of investors when seeking stocks or bonds in which to invest. They write to a score of banking and bond houses and investment brokers, asking them to recommend a certain kind of investment —say, a $10,000 investment for a widow's insurance money, or a $100,000 investment of the reserve fund of a brass foundry.

Out of a hundred letters certain stocks or bonds will stand out as recommended by a number of bankers and brokers, unknowingly to each other, and from these the investor makes his final selection.

It is hard on the boomer for some certain house or kind of investment, but it is a very safe, practical plan for the investor, be his amount of money large or small.

Concerning small investments, it may be said that, to-day, practically every concern in America gives the same careful courteous attention to the investor with $100 as to the millionaire. This was not the case some ten or twenty years ago, but to-day the investors with $100 are in unison, the dictators of American finance.

A man with $100 to invest need fear no snub or neglect from any financial firm in America, no matter how large.

There is one exception: when a man wants to open a checking or commercial account. Here the clerical work of taking care of little checks costs more than a $100 deposit is worth to the bank, so only small banks will handle them. But a firm like J. P. Morgan & Co. is glad to get a letter from the man with $100 to invest, and will answer it carefully; while the largest savings-bank in America — the Bowery Sav-

ings-Bank of New York City, with considerably over $100,000,000 on hand — will treat a man or woman with $1 to deposit, either by hand or by mail, the same as if he had $1,000.

Small Investors Are Welcome.

Some of the largest financial concerns in the world, such as the great banks and railroads, are now issuing $10 bonds, or stocks, while the $100 bond, or share of stock, is common.

In fact, practically every share of stock listed on the New York Stock Exchange represents $100, and not $1,000 or $10,000, as so many suppose. With from $100 to $200 a man can, if he wishes, become part owner in almost any incorporated concern in the United States. The $100 investor is king, if he only knows it, so he need not be afraid nor ashamed to enter into business relations with any one.

This point is made clear and certain here because so many millions of people believe otherwise. In order to find a place for their little money—as they look on it—they fall an easy prey to the horde of swindlers that are a stinging, crying disgrace to this country. In France they would be in jail in an hour.

To-day, in America, only one State—Kansas—has made a move to curb these pirates of the home, although the national government now and then jails a particularly reckless thief who promises big returns on small investments

In this country there are five kinds of banks. The postal savings, the national, the savings, the State, and private banks.

We have seen what a postal savings-bank is. Private banks are practically not banks in any sense except in name, they are controlled by individuals to whom you lend your money on their word, just as you would lend it to any individual of good standing in the community.

In some States, especially in our large financial centers, private bankers are practically as safe as any other bank, but in other States their safety depends solely on the honesty and ability of the men at their head, who are practically unrestricted by the law.

For certain business purposes and for certain business men, private banks are very good—and nothing against a private bank is intended in this article—but private banks, as a class, are not for men with a few thousand dollars to invest.

Commercial State banks are those organized under State laws. They are not subject to the control of the national government. Some State banks are very good, especially in States where strict banking laws are rigidly enforced.

This leaves us two kinds of banks to consider, national and savings-banks. We see a great deal in the newspapers about the necessity for a vital change in our national banking laws. This change is needed, but it in no way concerns the *safety* of our national banks.

Great Safety of Government Banks.

If a man puts $1 into any national bank in the United States, no matter in what State it may be situated, and regardless of the laxity of the State banking laws, he stands 70,000 chances to get it back safely to one of losing it.

In other words: out of every $70,000 deposited in the national banks of this country since they began during the Civil War, now over half a century ago, only $1 has been lost. This is about as near perfect as any financial arrangement can be in an uncertain world. Such is the splendid record of our national banks. No matter where in the United States, the words "National Bank" can be trusted.

No bank can use the word "National" in its name, or represent itself as a national bank in any way, unless it really is a national bank operating under United States government inspection and control.

Several times during panics, practically all the banks of this country closed. They kept half-way open, so to speak, by issuing clearing-house certificates, but in the end hardly any one lost any money through the national banks. Payment is occasionally delayed; but usually a national bank, even if it fails, pays back dollar for dollar, because the government takes charge of its affairs and sees that the depositors get a square deal.

The changes suggested in our national banking laws are to prevent such suspensions of payments, but we hardly can make the national banks safer than they now are.

National banks usually take money on deposit in two ways, either to be checked out as the depositor pleases, or payable only at a certain time, say, in from three months

to a year. On small checking accounts no interest is usually allowed, but from three to four per cent interest is usually paid on time deposits. Some national banks issue these "certificates of deposits," bearing four per cent interest, payable in one year or less, as may be agreed upon, for amounts as low as five dollars.

No Safer Investment.

There is no safer form of investment than these certificates of deposits in a national bank. Usually, however, if a man wishes to draw out his money before it is due, he must forfeit his interest, otherwise the certificate of deposit, paying interest as it does, would practically be a check account at interest.

Because a man can get his money when he wants it, many men prefer these certificates of deposits in a national bank to a savings-bank account, from which a man often cannot get his interest inside of three months.

There are two sides to this question. The national bank is, perhaps, the better place to have money in case of sickness, or at a time when money is likely to be needed so badly that the interest can well be forfeited. But the savings-bank account, from which one can draw money after so many days written notice, but with no loss of interest, is perhaps the best place for a man who is likely to draw out money when he really does not need it. One bank is as safe and as profitable as the other, the savings or the national, and the choice between them rests largely in the individual needs of each person as he himself sees them.

In States where savings-bank laws are not strict, the national bank certificate of deposit is by far the best investment.

The difference between four and five per cent interest on $1,000 is only $10, and so do not run the risk of losing your whole $1,000 for that $10.

In the first article of this series I explained why about 3.65 per cent is about all any man can earn with his money, no matter in what his investment may be, therefore it is unreasonable to expect a savings or a national bank to pay more than between three and four per cent

A bank that offers a rate higher than four per cent is venturing on thin ice.

Safe bonds pay but five per cent, from which taxes and other expense must be deducted, leaving a bare four per cent net profit, hence a safe bank cannot well afford to borrow your money at a higher rate than it can safely lend it. Gilt-edge investments will not, in the long run, net four per cent interest unless the investor ties his money up for a long time; so four per cent is about the limit any one can expect a bank to pay on money payable practically on demand.

A national bank, for instance, that offered six per cent on certificates of deposit would attract attention at Washington, D. C., and some one connected with that bank would probably have to do some pretty tall explaining.

The third article in this series, dealing with Life Insurance, will appear in July.

WALKED 203,670 MILES ON RAILROADS.

Remarkable Records of Veteran Track-Walkers Whose Vigilant Eyes Help to Preserve the Security of the Rails.

BY EDMUND G. KINYON.

OF the millions who ride on American railroads throughout the year, few realize the tremendous responsibility of the track-walker, who inspects every yard of the steel over which they speed. The public knows but little of the track-walker's work or how necessary he is to the safety of passengers.

Track-inspection is not a haphazard task. The track-walker has as hard and fast a schedule as an engineer.

Where signal-towers are close to one another he registers at each tower the hour and minute of his arrival and departure. He carries a registering clock, by means of which his movements may be checked to the fraction of a minute.

In case of an accident the registering clock shows at what previous time the track was inspected, and its readings often have a most important bearing on investigations of wrecks.

The track-walker's post is usually about four miles long on level track, but may be shortened to less than half that distance in sections where special vigilance is necessary. He must see that every foot of rail, every switch, every frog, every signal-stand, everything that pertains to the safety and efficiency of the line, is in perfect order.

An overhanging tree or rock must be noted, and if it is dangerous, it must be reported to the superintendent. If the danger be imminent, he must protect all trains until a section-crew removes the obstruction. Crossings must be carefully examined and overhead wires constantly watched.

Arduous duties confront the track-walker during and following severe storms, when rocks, trees, and other débris is cast upon the track. Violent floods weaken bridges and trestles and wash out whole lengths of tracks. The track-walker is not permitted to remain in his shanty until the storm has subsided, but must cover his post. He must exercise good judgment in the matter of alarms, for the unnecessary delaying of trains soon brings him into disfavor.

Many of these men walk track all their lives, and the records of miles covered sometimes reach astonishing figures.

It is believed that the long-distance track-walking record belongs to Manuel K. Silva, who has just been retired on a pension from the service of the Southern Pacific. Silva's post was located in the snow-sheds of the Sierra Nevada range in California, through a desolate, uninhabited region, infested with mountain lions, timber wolves, and other dangerous beasts.

His daily jaunt covered eighteen miles. He was on the job thirty-one years. It is computed that he traveled 6,570 miles each year, or a total of 203,670 miles, or more than eight trips around the world, during his service.

Guarding, as he did, the great wooden snow-sheds, often buried beneath tons of snow, his duties were particularly exacting. Many times he battled with bands of tramps, whose smoking and camp-fires were a menace to the sheds. Often he stumbled over the bodies of trespassers, who, overcome by smoke and gas, had lost their holds on brake-beams and fallen to death.

The career of Silva is not without its romantic note. Years ago, in Portugal, he was married by the contract system to the sweetheart of his youth, but continued faithfully at his work until his retirement at the age of sixty-five. Then he took passage for his native land to claim his long-deferred bride.

George A. Burns, of the Pennsylvania Railroad, has walked 177,900 miles during his thirty-five years of service. His post lies between Greensburg, Pennsylvania, and the Youngstown yard, a distance of 3.53 miles, which he covers four times daily.

Burns has inspected 5,725,800 splice-plates, besides several million other odd jobs, since he began his track work.

William Young, of Franklin, Pennsylvania, also has a remarkable record. He has been in the service of the Pennsylvania system a little less than twenty-three years and has traveled 154,144 miles.

Other records above 100,000 miles are held by Simon Owen, Washington, District of Columbia, 135,626 miles in twenty-five years and four months; Dennis Watters, Norristown, Pennsylvania, 111,624 miles in twenty-four years, and Julius Hein, Edgewood, Maryland, 101,100 miles in twenty-three years and three months.

The importance of the track-walker's work is well illustrated by an incident which occurred during the last transcontinental tour of President Taft. A half-hour before the President's special, preceded by a pilot-engine, was due to cross the El Capitan bridge, a high structure, eight hundred feet in length, near Santa Barbara, California, a Mexican track-walker named Victor Goméz discovered a man lurking in the low brush underneath the bridge.

Gomez at once made an investigation, and under the piers of the bridge he discovered some forty sticks of dynamite, with the fuse and caps attached.

Following this incident and other suspicious circumstances, the Southern Pacific placed a man on almost every mile of track between San Francisco and Los Angeles, six hundred miles.

For thirty-two years, James Rowan, sixty-seven years old, walked the tracks of the Northern Pacific Railroad in the Yakima Cañon, Central Washington.

After this long period of faithful vigilance, Rowan asked for a vacation. He wished to visit the old folks in Ireland.

The company at once granted his request and gave him the tickets for the voyage. His comrades on the railroad also contributed to a friendship fund and presented the veteran with a purse of several hundred dollars.

The letter from the general offices of the company said, in part:

> Rowan is granted three months' vacation with the compliments of the railroad. The company wishes him a pleasant journey to Ireland. In appreciation of his long service, it will be glad to defray the entire cost of the trip.

Rowan, during his long term of service, lived alone in a small hut in the mountains with only dogs for companions.

The Carbon Copy.

BY HORACE H. HERR.

A Date with a Bunch of Soldiers at Daybreak Starts Something New.

SYNOPSIS OF PREVIOUS CHAPTERS.

EDGAR FERRIS, the son of Jim Ferris, president of the I. N. and S. Railroad, having wasted the opportunities of college and developed into a foppish spendthrift, is compelled by his father to go to Mexico to work in a construction-gang. Edgar soon arrives and under Pap Riordan, the boss, and Hasbeen Mallory, he prepares to harden his muscles and moral fiber by swinging a shovel. Edgar, left at Birmijia to spy on Clem Bradmark, who opposes the railroad, is attracted by Bradmark's daughter and refuses to leave town. Hasbeen forcibly compels him to proceed to camp and join a bridge-construction gang as helper. At work, he disobeys Hasbeen, a fight follows and he falls from the span into the river. Hasbeen saves him, they become friends, and Edgar later saves the foreman from a gang of laborers who revolt. Edgar is arrested for striking a soldier who annoys Miss Bradmark, and while in jail overhears a plot to blow up Poncho bridge. He overpowers the guards and escapes.

CHAPTER VI.

A Human Compound.

ON the day that Hasbeen Mallory and I walked from the Poncho River bridge to Comancho I began to appreciate just what kind of a school Edgar C. had been attending in the days when he was on the work at the front, and I'm about half convinced that if old Jim Ferris had realized that his only son was flirting with the big works in several forms he'd have burned the wires with the running orders which would have sent him home to father.

I'll not enlarge on the story, because I'm almost out of language, and, besides, I can't improve much on Hasbeen Mallory.

He was riding the trouble special along with Edgar C., and saw all the fireworks. Here's the shipment set out by the natives at Poncho bridge, just as Hasbeen checked it in to me.

"While we all thought life at the front was pretty fast under ordinary circumstances, we decided we'd been ridin' a slow drag when things really began to roll. When Ed showed me his train-book on that trip to Birmijia, when he broke into the irrigation ditch, high society, and the jail, I believed his story about the plot to wreck the Poncho bridge. A week after we told Pap Riordan about the plot, the front moved down to Comancho.

"Poncho bridge had been finished, all except the painting of the superstructure. With Poncho Cañon fixed so we could get rails across without carrying them on our heads while we swam the river, it looked as if we were through with the last big job, and the rest of the way to Chihuahua would be Pullman cars.

"The day we moved, Ed and I went ahead carryin' a flag for the whole crew. We hired enough of the population of Comancho to sleep in the back yard so that all the Americans could get under cover in the mud shanties the natives vacated. Having rented most of the town and bossed the job of moving Pap Riordan's camp-stool and his other pair of overalls and rubber boots, Ed and I started back to the old

camp on the Poncho to see if we had overlooked anything.

"When we moved ahead of the steel that way, C. P., we had to travel by a burro special. Pap Riordan always let me be the conductor of the special—for why, I don't know, unless it was because burros always seemed to understand me better than they did Pap.

"Ed and me counted ties from Comancho to the Poncho bridge, there being no steel beyond the cañon, and when we got there we found that Pap had changed his mind and was going to remain at the bridge that night, bunking in one of the cabooses.

"Ed and I tinkered around the cañon until about ten o'clock at night, and then, being sure that all the laborers were headed for Comancho, even if they never got there, we started to hoof it back to our new hotel. Bein' sure that the Mexicans who made up the crew on the burro-train wouldn't overlook a rifle and a brace of navy revolvers, Ed and I had them with us.

"Just as we were dropping down the fill of the bridge approach on the end toward Comancho, Ed began to see things. He reckoned he saw somebody about a train-length above the bridge. I admitted he might have seen what he said he saw, but I couldn't see nothin' important in that so long as the fellow didn't carry a red light; but the kid insisted that we'd better investigate a little.

"We dropped down on the side of the fill which would hide us from the view of any one in the direction in which Ed said his real spook was, and made a slow sneak back to the bridge. We'd been there so long that I was a thinkin' I'd soon have a vote in that county, when we heard some Mexican voices just above the bridge and evidently on the water.

"Ed and me was on the south side of the bridge. The voices were on the north. Even if it had not been so dark we could not have seen them when we first heard them, meaning, of course, that we couldn't see who owned 'em when we first heard the voices.

"Ed was carryin' the rifle. Directly we heard a swishing sound as if some one was rowing a boat, and a few minutes later we could make out the dark outline of the boat nosing out on our side of the bridge.

"It seems the hoghead on the water-train didn't use enough air, and he run by the switch. There was more voices and more swishin', and the boat turned about and went back up-stream to the middle pier of the bridge, and made fast to an old pile which had been driven when the work was begun.

"A fellow produced some kind of a dim light, and we decided that there were six men in the boat. After a few minutes we detected a metal tapping, and it didn't take very long to convince me that those fellows were drilling a hole in that big pier.

"Just the minute I admitted that I believed that was what the men were doing, Ed began to get nervous and wanted to see if a rifle would shoot two hundred feet. I advised him not to do anything he'd be sorry for, and suggested that, seein' as how we was just corporation hirelings, we'd better get word to Pap Riordan. Just as long as the boat remained there at the pier it was a certainty that there was to be no explosion of dynamite.

"I suggested that one fellow remain there and watch the gang and the other try his luck at creeping across the bridge and bringing Pap Riordan and Wilson down to the cañon. With a little help there was a chance of gettin' 'em in alive.

"I was plumb scared to leave Ed there alone with that gun, so I suggested that he do the 'bridge at midnight" scene and leave me to watch. He agreed to it after I gave him one of the revolvers in place of the rifle. He didn't lose any time gettin' started, either.

"I reckon he crawled on his hands and knees clean acrost that bridge, C. P. He told me it took him an hour, not countin' stops, and all the time he was makin' the run I was sittin' over there on the bank, keepin' company with a shadow and a wishin' I was in the hay down in our new hotel.

"I was just about to go to sleep at the switch when I heard an awful row over on the other side of the cañon. The gang in the rowboat heard it, too, and they didn't hesitate in makin' their getaway.

"Say, C. P., if Pap Riordan could have got his hooks into Ed that night he'd' bumped him good. He'd 'a' done it just as sure as coal burns. It seems as if Ed got over to Wilson's caboose, and, after several attempts finally got Pap Riordan enough awake to make him understand that there had been a change in the weather. When Pap really wised to the fact that we had caught some one with the goods, he began to move mighty fast.

"The first thing he did was to grab the short shotgun he always kept near him at night, then he woke Wilson, and the three started for the bridge.

"Pap led the way, and Pap is long on pickin' the best walkin'. When they got near the bridge, Pap stepped over onto a plank runway we'd used to wheel cement and crushed rock on. This ended about fifty feet from the brink of the cañon, but one could step down from the plank to the fill, it bein' no more than a couple of feet. Pap come to the jumpin'-off place, and, takin' extra precaution so as not to make any loud noise, he stepped off.

"He weren't no more surprised than that old sow was, C. P. Mrs. Hog, seein' as how the hotels were crowded, had taken her flock of piglets out under the old plank runway. It seems the piglets took up most of the room under the runway, and Mrs. Hog was stickin' out far enough so that when Pap stepped off the board above he lit on some ham on the hoof.

"I heard that hog snort clear across the cañon. Pap, a steppin' that way on a movin' foundation, came down on his back just in time to hit a couple of shoats what won't never be no more than half-grown if they live to be a thousand years old.

"Say, C. P., of all the high soprano singing you ever heard, them piglets did it; and to make matters worse, Pap's temper got the best of him, and in a last effort to get even he up and pulls the trigger on two barrels of No. 4 shot, the same a bein' pointed in the general direction Mrs. Hog was travelin'; and by that time the gang what had been diggin' holes in our bridge had lost all interest in their work, and was beatin' it up-stream as fast as they knew how on a wet rail

"I waited a few minutes in the hope that I'd get a come-ahead signal from across the creek, but the stinger on the cinder end must have got a hot one in his eye and dropped his lamp, for there was nothin' doin'.

"I knew Ed would be awful sore on me if I let the crew in the boat get away without registerin'; and not knowing whether they had a Gatling gun or just a toy pistol, I kept as far away from them as I could without losing them entirely, and spent a good deal of my time lookin' for a man-sized rock behind which to hide in case anybody started something.

"I must have followed along the edge of the cañon for three kilometers before I was sure that the hand-power steamboat was putting into shore. Understand, C. P., the banks of Poncho River are as straight up and down as the sides of a sky-scraper, except in a few places where little ravines coming into the river make it possible for a man who ain't evoluted too far from a monkey to climb out. Where the boat came to shore was in the mouth of one of these little ravines.

"Of course, I wanted to see what was going on, so I crawled right up to the brink of the cañon, and was calmly looking down on the party which was getting out of the boat, forty feet below me, when a horse let out a laugh right behind me, and I came near falling into the river head first.

"I never heard a horse neigh so loud in all my life. At first I thought it was a lion roaring. I started to jump across the cañon—a hop of two hundred feet—but just as I was gettin' set I thought better of it, and stopped just in time to kick loose a big boulder, which dropped into the river with a splash like that made by a fat man taking a plunge in a Y. M. C. A. pool.

"The fancy work from the splash went all over the passengers who had just left the boat, and of all the hard language you ever heard—well, C. P., if it had been in English, I'd have been shocked! As it was, I stood there on the brink of the cañon and laughed, forgettin' entirely that the gang below would be in a hostile mood until *bang!* went a smoke-pole.

"Believe me, I didn't wait to see if I'd been shot. I started home. I started so sudden that I scared a bunch of horses hitched about twenty yards back. When they tried to pull away from some scrub-trees they made enough noise to give me an idea.

"I went up to the nearest one, and helped it break away. Having helped it, I got aboard. By holdin' on to the saddle with both hands, I managed to travel almost as fast as it did.

"To make it short, C. P., when I got back to the fill feelin' as if I'd broke in two in the vicinity of my vest-pocket, Ed had the red lights out at the bridge.

"I pulled the bell-rope on the horse, and finally got it slowed down to where I thought it would be safe to hit the grit. The funny part of it all was that while I couldn't pull hard enough on the lines to stop the nag, the minute I started to swing off it

stopped dead still—stiller, in fact, than I did.

"Seein' as it was pretty dark, Ed wasn't sure that the man ridin' the summit of the horse was me, and he come to where I was pickin' myself up, with that old navy revolver pointed in my direction.

"'Don't shoot, Ed,' I said, 'the horse didn't mean anything by it.'

"'Is that you, Hasbeen?' asked Ed.

"'As near as I can figure from where I'm a sittin', it is,' I replied.

"'I say, now, are you hurt?' asked Ed.

"'I don't need the back shop, exactly,' I replied; 'but there's a few spots where I could use a little varnish.'

"Realizing that I couldn't be very much to the bad order, Ed dropped to the ground and began to laugh like he'd eaten a loco-weed.

"'Well,' says I, wonderin' what was so funny, 'let me in on it.'

"More laughter.

"'I reckon it must be a good joke, Ed; but if you'd just been ditched from the roof of a horse, you'd be slow to see the fun in it.'

"More laughter.

"I began to get uppish, seein' as how there wasn't anything to laugh at; and I was just startin' in to tell Ed what I thought of him when he got the laugh-valve shut off long enough to stutter.

"'Pap Riordan's broke a leg.'

"'I can't see anything to laugh at in that,' I replied, greatly surprised at Ed's behavior.

"'Of course not,' he answered; 'you wasn't there to see the show.'

"It was then that I remembered hearing all the racket beyond the cañon. Ed finally got the laugh under control so that he could say more than six words without snorting, and he explained:

"'It's a blawsted shame, Hasbeen, but it was the funniest thing I ever saw. Pap stepped on a piece of pork, slipped, and broke his leg; then he put two barrels of No. 4 shot in the pork, and, Hasbeen, you should have heard the squeal.'

"'I did,' I told Ed; 'and that ain't all. The gang in the water-goin' flat-car heard it, too, and they beat it up the creek. I followed them, and came near gettin' what the hog got. The only way I could beat it quick enough was to grab one of the nags. Say, Ed, that horse is really a good horse for the fix it's in.'

"Ed walked over to where the horse was standing with its head hanging low, looked over the harness, walked around the brute, and then exclaimed:

"'Don't you know, old man, this horse belongs to that blooming officer in Birmijia?'

"I allowed as how if it was his horse he'd have to advertise for it or come and get it himself, and Ed said that advertisin' wouldn't buy the officer anything. Ed decided that we needed a horse at the front, and he opined that this horse would fill the bill until a better one showed up.

"When I found out he felt that way about it, I was willing he should have the horse. Since Ed and Wilson had taken Pap Riordan back to the caboose, and Wilson was preparin' to run into Birmijia with him to see the company doctor, Pap had ordered Ed to get me and go down to the new camp so as there would be some one to lead the natives to their work in the morning. We started to pick our way along the fill, leadin' the horse, which, just as long as I wasn't on her back, seemed to be a gentle little brute.

"We'd just got about a train-length toward Comancho when I heard something drifting along the cactus-field. You didn't have to put your ear to the ground to realize that it was gallopin' horses, seein' as how there wasn't no buffalo in that part of the timber.

"Believing that we'd feel better with something between us and those gallopin' horses beside the smoke-colored atmosphere, with me a leadin' and Ed in helper service, we persuaded the horse to climb the fill.

"When we reached the top we could distinguish four riders coming toward us. I had left four horses tied back at the ravine, and the fellows were comin' down to collect the livery hire on the horse I rode away. Seein' as how it was two weeks till payday, I knew I'd have to stand 'em off.

"There was no need of a waitin' for 'em to present the bill. I knew that, but didn't think to explain it to Ed. Just to let 'em know that it was our busy day, I pulled up with the rifle, and put a ball in the dust a few yards in front of the head-end.

"If an engine ever stopped as quick as the leader of that flock of riders stopped it would put the cupola of the dog-house on the smoke-stack, providin', of course, there wasn't more'n a hundred cars in the train.

"The crew finally got down from the horses and seemed to be comparin' orders or

watches. Thinkin' that they hadn't quite understood me, I dropped another bullet in the dirt about a dozen yards away from them. I hadn't ought to have done that, C. P. They got real peevish about it, and the first thing I knew each of the four had pulled the trigger on a small cannon, and the air sounded as if we'd just stirred up a hive of bees.

"When I saw that the four men wanted to play marbles, I was ready to drag it for the next station. I asked Ed what he thought about tryin' to ride Black Bess on the double-headin' plan, and just for suggestin' such a thing I come near gettin' kicked clear down the fill.

"'I say,' says Ed, after I'd explained the idea to him, 'don't you think they'd get the idea we were running away?'

"'Yes,' I admitted. 'They might get the idea after an hour or so; some of these natives really tumble to an idea once in a long time.'

"'Well, blawst it all, Hasbeen,' said Ed, 'I don't fawncy runnin' away from the beggars, and, besides, it would be asking a good deal of the horse to carry two of us. Suppose you go on.'

"Say, C. P., of all the hot ones I ever had handed to me, well, that one was just like catchin' a white-heat rivet on the bare hand. I wanted to come back to Ed with something with a horseradish tint to it; but while I was thinkin' of somethin' keen to set out on him, the bunch in the pasture started to render the presidential salute. From that minute until daybreak I was awful busy givin' an imitation of a pig in a pen.

"The pig-pen idea was Ed's, and it wasn't half bad. There were ties scattered along the fill. While I was busy tryin' to keep under cover and, at the same time, prevent certain irresponsible fellows from trespassin' on railroad property, Ed was wrestling ties.

"He shoved and hauled and pulled until he had quite a respectable V-shaped blockhouse built up on the fill. By placin' two of the ties so that they did not join at the point of the V, he left a hole through which a fellow could stick a rifle. It really was a good little fort, and I wasn't a bit sorry to crawl into it.

"Believe me, that was an awful battle. I fired a dozen shots from the rifle, and Ed must have fired as many from the revolver. The four men on the *insurrecto* side must have fired a total of fifty shots—and never a man was killed.

"We shot holes in the sky and made that country around there look like a sieve, but every one was careful to shoot where somebody wasn't. I come near bein' killed at that.

"It was pretty dark—darker than it had been all night. The moon had gone down, and daybreak wasn't more'n than around the next curve. I had shot into the night for general results when some one grabbed my foot which was stickin' out of the pen, and a loud, roughneck voice remarked:

"'You fellows have got your dates mixed; this ain't the Fourth of July!'

"That hand a couplin' onto my shin and that voice whistlin' in my ear so sudden, I came near dyin' from heart-failure before I realized that the recruit was Wilson.

"An hour later it began to get light. When it got light there wasn't nothin' in sight but me, Ed, Wilson, the horse, the tie-house, the fill, and a lot of vacant country. All the way back to Poncho bridge Wilson kept tellin' us as how there wasn't nobody around all night, and remarkin' that he had heard of it makin' a man see pink monkeys and green alligators, but he'd never heard of it makin' two men see the same things, especially when the things looked like men on horseback.

"Just the same, Wilson had sent Pap Riordan into Birmijia, with Mahoney actin' as engineer and conductor on an engine and a caboose; and I noticed that before the caboose left Wilson had taken every kind of a fightin'-iron there was on it, and he had enough ammunition on his clothes to have lasted through a long campaign where there was real fightin'.

"When we found that everything was all right at Poncho, Ed and I started for Comancho, and we took Black Bess along. In daylight she was a mighty pretty-lookin' horse, if I know anything about horses, and it wouldn't have been right to leave her alone in a wild and forsaken country.

"We got down to Comancho in time to eat a ten-o'clock breakfast, and by noon we had the gradin' gang and the tie gang on the work as if nothin' had happened. Ed and I were the only white men in Comancho that night, but, C. P., I didn't mind it a bit, for I was beginnin' to wake up to the fact that Ed was an awful good old engine, and what had happened durin' the night had put a lot of steam in his boilers.

"For a month things went along smooth —too smooth. The fact that everything was quiet and ladylike worried me. I felt as if trouble was a piling up some place, and I didn't miss it more'n a mile. It wasn't trouble, C. P., it was — well, you know sometimes this language of our'n is on the blink when you want to describe a thing what ain't never been nar'ed.

"When Ed and me and Wilson and Mahoney had got the steel down as far as Comancho, the first time we let the material-train come clear through, Pap Riordan rode it down. We's there to meet him, of course, seein' as how he'd been loafin' around Birmijia for over a month, limpin' about on one side.

"When Pap Riordan, with the aid of a pair of crutches, swung off the old coach on the train, and right behind him come Clem Bradmark, his daughter, and that Señor Uniform, I knew it was a goin' to rain, and I didn't have to look at the sky either.

"Did I say rain, C. P.? Excuse me, I meant hail. It hailed snowballs and icicles, and it caught Ed out in the weather without an umbrella."

CHAPTER VII.

Edgar Does the Paul Revere Stunt.

IT was fully a week after Clem Bradmark, his daughter, and the gentleman with the uniform whose name was Manuel Jimenez, visited Comancho, when one of the chief engineers who was ahead of the front with a surveying gang, came up from Chihuahua and brought with him several copies of newspapers from Mexico City and El Paso.

Pap Riordan was still limping about with the aid of crutches, and, as he had plenty of time to read, he didn't miss a line in any of the newspapers, and he found a few things which made him a bit pensive. Bradmark's visit to the front, on the face of it, seemed to be an attempt to open negotiations to establish friendly relations.

Of course, Pap Riordan and Hasbeen Mallory viewed him with suspicion, and expressed a great deal of satisfaction when he took his little party back to Birmijia.

Edgar C. did not see the party leave Comancho with so much satisfaction. During the two days the party was in town he found several occasions to have a little chat with Miss Bradmark, and even went so far as to take her out to the Poncho bridge and explain the greatness of the engineering feat in its construction.

The one person, the very sight of whom made Edgar C.'s hair stand on end, was the owner of the uniform, Señor Jimenez. There was no doubt in either Hasbeen's or Edgar C.'s mind but that the *señor* was in Comancho to locate his black horse. Edgar C. was just mad enough to make it a point to let him discover the animal.

If the officer had allowed any one to notice that he recognized his own horse, or if he had put in a claim for the animal, he would have been admitting that he was one of the would-be bridge-wreckers.

This admission would have meant all kinds of trouble for him, and he knew it. He probably knew that Edgar C. and the rest of the gang at the front knew it, too, so when he saw Edgar C. ride by the little adobe where the *señor* remained for the night, he nibbled his little black mustache and kept his hand off the whistle.

But when Pap Riordan looked over the papers from El Paso and Mexico City he got an awful pain in his broken leg. Both towns seemed to be talking of nothing else than the rumblings of revolutionary movements which were on in the State of Chihuahua.

The El Paso papers were full of accounts of the proposed mobilization of troops on the frontier, contemplated by Uncle Sam, and just judging from the box-car letters and the length of the articles the United States was looking for real trouble.

Having digested the newspapers, when Hasbeen and Edgar C. came in that night, they found Pap suffering from a bad case of indigestion. The straw-boss and his shadow read the articles shown them by Pap, and then there was a council of war, during which it was discovered that the object of Clem Bradmark's visit was as plain as the number-plate on a new engine.

"They were just going over this section of the line to see of what value it would be in case of a revolution," concluded Pap Riordan.

"I reckon Chihuahua will be one of the first towns the *insurrectos* will try to take," suggested Hasbeen. "Bradmark is in with Gonzales, and I'll bet a dollar to a busted air-hose that the gent with the uniform is in the deal, and is just about to throw the switch on the federal government."

"Guess you people will have to admit

that there was something in that bear story I brought in here with me the first day," said Edgar C. in his best I-told-you-so voice.

"But if Jimenez is in with Bradmark, why would they want to dynamite the bridge, especially if they contemplate an attack on Chihuahua?" asked Pap Riordan

"Now, don't you think," began Edgar C., "it isn't probable that a revolution would start in the town where there is a strong federal force. I take it that these fellows will start in near the border, so if there are reverses they can escape into the United States. The very first outbreak along the border will call for a rush of government troops. If Birmijia is one of the places where the fuse is to be lighted, the I. N. and S. would be of more service to the government troops than to the revolutionists."

"Well, say," interrupted Hasbeen, "who are we goin' to be for and who are we goin' to be ag'in'?"

"We'll remain neutral," said Pap, with some emphasis.

"Meanin', I suppose," replied Hasbeen, "we'll stand up between th' two of 'em as harmless as a dead engine, and get a bunch of butcher-knives in our head-end and a train-load of half grown cannon-balls in our tail-end. No, Pap Riordan. I've been almost everything in my day exceptin' a neutral, and it's too late for me to be that now. When you are on one side or the other, you may get punched in the face or kicked in the back, but it ain't often that you get the punch and the kick at the same time. Let's be goin' or comin', but don't stand still."

"Then we'll have to be for the government," replied Pap Riordan. "The grant under which we are building this railroad is under the government as it now stands, and if it falls, Jim Ferris's company stands to lose a lot of money."

"I reckon you're right, as usual," admitted Hasbeen.

"But, I say," interrupted Edgar C., "we're right in the heart of the rebels, and the government is a long ways off."

"We might try that policy of bein' a dago while in Rome. When I was hittin' the low places I found a fellow gets along pretty well if he's a switchman when he's sittin' around the yard-shanty, and he can promote himself to a stinger when a shack finds him in the ice-box of an empty refer."

"But don't you know," suggested Edgar C., "it wouldn't be a bad idea to be for both sides."

"Ed," said Hasbeen, with some show of contempt, "did you ever try to keep a foot on each car when they broke in two?"

"We'll have to be for the government. We were tied up to the government before we came down here," said Pap Riordan.

"Oh, I don't know," argued Hasbeen. "The fact that you're coupled to a wild engine don't mean that you can't pull the pin."

"But I was just thinking," broke in Edgar C., "it might be well enough for me to line up with the insurgents and you two fellows could remain loyal to the government."

"It won't do," mused Hasbeen. "I'd sure hate to have to whip you every time we met on the right-of-way. I hate it for two reasons, about half the time I'd get licked and the other half you wouldn't."

Hasbeen's remark brought a laugh from Edgar C. and made Pap Riordan so peeved that he tried to kick a hole in the mud-wall with his game leg.

"If I didn't have you two kids down here gettin' into all kinds of scrapes I'd be able to do something," growled the superintendent.

"Kids," repeated Hasbeen. "That may be Pap, but I never went so far as to try to do the broncho-bustin' stunt on the back of these native razor-backs."

Pap Riordan snorted.

"This is no laughing matter, Hasbeen We are up against a serious situation," he insisted.

"Yes," replied Hasbeen, "I allowed as much."

"But, I say," said Edgar C., "that suggestion of mine isn't half bad, when you think it over. I could be for the rebels. I might even go up to Birmijia—"

"Red board!" called Hasbeen. "Stop the train! I think I see some one waving a petticoat."

Edgar C. turned a little red, but refused to be cut off on a blind lead.

"Never mind about the petticoat, Hasbeen," he went on with unusual calmness. "As for Miss Bradmark, I couldn't help but like her. She's an American, Hasbeen; but the fact that she has treated me very considerately might be of some help to me and all of us."

"Blood's thicker than water," replied

Pap Riordan. "Don't get any fool idea in your head about the lady turnin' down her dad just to let you know what the rebels are going to do."

"But Clem Bradmark rather likes me, too," urged Edgar C. "I wouldn't have to play a part in siding with the rebels, for I rather sympathize with them."

That conference did a lot of fast running, but it didn't get much of any place, and for a few weeks the men at the front went on in an atmosphere of uncertainty, guarding the Poncho bridge all the time, building railroads and whispering of war.

Pap Riordan had the steel down for ten kilometers south of Comancho, and it was only a few days until the camp would again be jumped. The construction-train, with the 2117 to push her down to the front and bring her back, tied up each night at Comancho.

The old goat, still bearing a dent in her front end, to remind us of the night she went into the ditch at bridge 41A, was pulling the material-train between Birmijia and Poncho, and, generally, she tied up at Poncho since Pap Riordan suddenly became possessed with the desire to have just as many Americans at the south end of the road as possible.

Every night, over in the little adobe at Comancho, Riordan, Hasbeen, and Edgar C resumed the argument as to which side of the controversy the forces of the I. N. and S. should aid if the occasion offered. The argument always ended where it began, with Pap and Hasbeen declaring for the government, and justifying their position with the argument that the government had given the grant under which the I. N. and S. obtained its right-of-way; and Edgar C. claimed that he favored the rebels just for diplomatic reasons.

Then came the night of Paul Revere's ride, which showed just where Edgar C. stood

The evening conference had been over for almost an hour. Pap had climbed into his little cot, and Hasbeen was just folding up the latest paper from El Paso preparatory to hunting the hay. Edgar C. was running the lawn-mower over his face, a thing Hasbeen insisted he did every night. The door to the adobe was open, and without the least warning the wavering light from the candles suddenly disclosed the form of a rurale standing on the threshold.

"Good evening," he said.

Hasbeen returned the salutation, and invited him in. He came in, and another soldier took his place in the doorway. Hasbeen asked if there was anything he could do for the visitor, and then a conversation began which proved of much interest to every one

In the end it amounted to this, the captain and fifty rurales were in a big hurry to reach Birmijia. It was still all of sixty kilometers, too far for a night's ride with horses.

The captain was very sorry, but it would be necessary to go to Birmijia by train. Would the *señor* get ready the engine and enough cars to carry the men to the town? If the gentlemen would not do it, of course, though it would be a very painful duty, the captain would be forced to use whatever measure might be necessary to gain his request.

Hasbeen started in to parley with the soldiers. Pap Riordan woke up, and, from a sitting posture on the cot, joined in. When it was least expected, Edgar C., newly shaved, broke into the conversation with his very best college Spanish.

"We shall be very glad to get the engine ready for you, sir," said Edgar C., "and we only hope that you and your men will remain in this vicinity for a few weeks."

The captain seems to think that Edgar C. is not only the boss of the works, but a real gentleman. He says as much.

Edgar C. began to tell him the troubles which come to those engaged in building railroads. There are some men who are very dangerous to railroads. For example, there is Clem Bradmark. He has been a great trouble, a thorn, one might say, a spike in the flesh. He should be in jail.

The captain is much interested. He says little but smiles much. Edgar C. continues. It is even intimated that this Bradmark person is much interested in a movement against the government. If it should be that soldiers were sent out to get him, the railroad company would get out its best engine and its finest cars to carry them. Such talk is not to be said above a whisper, according to Edgar C., but it is the truth.

The captain smiles some more, and again admits that there is but one gentleman in the United States and that he is in Mexico —in the very room, in fact. Perhaps, who can say, this Clem Bradmark is already taken. He may be only now waiting for a military escort to Chihuahua. Once in

Chihuahua—oh, well, who can say, he may not longer trouble the railroads.

Hasbeen and Pap Riordan were both surprised and pleased to see that Edgar C. had finally come over to the government's side of the controversy.

"We should get an engine ready at once," said Edgar C. to Hasbeen, still speaking in Spanish. "We should get the best engine and the best cars for the Señor Captain."

"We should," admitted Hasbeen.

"We can have them ready in a half-hour," said Pap Riordan, as he lifted his game leg from the cot to the floor.

"The Señor Riordan has a broken leg," explained Edgar C. "If the Señor Captain will excuse him, he will remain in bed."

Of course the captain will excuse him, and begs a thousand pardons for having interrupted his sweet slumbers.

"There is no choice in engines, as we have but one at Comancho," explained Edgar C. "But there are many cars. If the captain will just go with the Señor Mallory and indicate which cars will best serve his purpose, I shall be glad to get the engine ready at once."

That captain never was treated so fine in his life. For a half an hour he thought he was the president of the republic. Hasbeen had that winning way in showing him about the three little tracks which made up the yards.

But while Hasbeen and the captain were deciding whether the rurales would ride on a flat car or in a box car, Edgar C. was awful busy. He hurried down to the little pit-track where the 2117 was simmering, woke the fire-boy who used the engine-cab as his bunk-house, and gave him a very positive order, promising as much as *uno peso* if the job was done just as it was ordered.

"We are to take the soldiers to Birmijia," Edgar C. told the Mexican lad. "We must have everything very grand. You must hurry and pull the fire from the engine, dump the old fire into the pit, take the best wood and build the very best little fire you can build. Build a fire which will make a very hot engine."

It was a very good order; it was natural that the soldiers should have the best little fire any one could build. Of course it would be an insult to use any of the old fire. The fire-boy appreciated the young boss's desire to do honor to the soldiers.

He let the little engine roll back to the pit, stopped her, and began to pull the fire. When Edgar C. was sure that the boy was to carry out the order, he slipped him the promised dollar, and hastened away—not in the direction of the little 'dobe.

He walked hurriedly to the mud corral where he had been keeping Señor Jimenez's horse, and he put the bridle and saddle on her in great haste. He led her out and walked away toward the little burro-trail which, a half kilometer away, led toward Poncho, by the only fording-place along Poncho River in a distance of twenty-five kilometers.

When he was on the trail and well away from the cluster of mud houses which constituted the town of Comancho, he swung himself into the saddle and urged Black Bess, as Hasbeen had named the black mare, into a gallop.

By this little trail it was twelve kilometers to Poncho. There, Edgar C. knew that the goat which Mahoney was driving on the material train would have a little steam in her boiler and a banked fire in her box. If the Mexican fireman at Comancho carried out his orders, it would be a good half-hour before that brand-new little fire, the best little fire he could build, would be hot enough to warm the fire-door

It would take another half-hour to get the cars switched out, and fifteen minutes or more for the train to get over to Poncho. Edgar C. had an hour and a little more to cover about ten miles. Although Edgar C. did not have a very high opinion of Señor Jimenez, he knew from experience that Black Bess was a real horse, and she brought him over the ford into the little camp at Poncho in less time than he had figured

He wasted enough time to take the saddle from the mare and tie her to a shrub, where he was sure she would be seen by the men at Poncho as soon as they began to move about in the morning.

He tied the blanket which he had used under the saddle, about her. and then hurried down to the rickety coal-bunker where he knew the old switch-engine spent the night. For a wonder there was no fire-boy on the engine. This was something of a disappointment to Edgar C., but he did not lose much time lamenting

The needle showed eighty pounds of steam, and there was a good bed of coals in the fire-box. Edgar C. ran down and

lined up the switch for the main line, climbed onto the engine, and using the knowledge he had picked up since his sojourn at the front, advanced the Johnson bar and opened the throttle.

Every time the old hog took a breath the new engineer was sure she had awakened every one in the State of Chihuahua. Finally the engine rolled over the switch and onto the main line.

Edgar C. did not go through the formality of closing the switch; he opened the throttle, put on the blower, and got down onto the deck to put in a few spoonfuls of coal. It was then that he heard the 2117 whistling. From the sound Edgar C. concluded that the engine pulling the soldiers was approaching the Poncho River bridge.

It was down-grade to bridge 41A, and almost level from there into Birmijia, with the exception of Pinta Hill. Edgar C. had a very vague idea as to how fast an engine should run, and the way he rolled down the long slope to 41A would have turned gray the hair of a conservative engineer.

All Edgar C. was thinking of for the greater part of that journey was getting to Birmijia in the shortest time possible. As he began to realize that Birmijia was not so very far away, he wondered what might be the best way to stop an engine.

He came over the switch at Birmijia at a speed which would have been a credit to the limited. When within a hundred yards or so of the box-car station, he shut off. Of course he rolled by and on to the high switch beyond. He reversed her and came back at a fair speed. In front of the station he again shut off, but the engine still rolled.

He let her go and she rolled down over the switch, traveled down a five-kilometer hill, and came to a stand on the curve near a blind siding down at Pinta, ten miles back toward Poncho.

That's where Hasbeen Mallory, the captain, and his fifty rurales found her.

But that was a mere incident. When Edgar C. unloaded from the goat in the Birmijia yards he made a bee-line for the road leading out to Bradmark's place.

A few blocks beyond the plaza he found an adobe with the door open and a light inside. He recognized it as the same little adobe in which he had had some dealings with Señor Uniform, alias Jimenez. He started to pass it on the farther side of the right-of-way, but looking into the dimly lighted room he saw not only Señor Jimenez, but Clem Bradmark. Both men were seated at a table, and were talking very earnestly.

Edgar C. went across the street into the deeper shadows, and cautiously made his way to the door.

For less than five minutes he listened, then he stepped boldly into the door, having made sure that his navy revolver was hanging in a handy place at his belt.

His arrival surprised Bradmark and it shocked Jimenez.

"Well, well!" exclaimed Bradmark. "What on earth brings you here at this hour in the morning?"

"I might say the same thing that brings you here," replied Edgar C. "War and revolution and all that tommyrot."

Both Bradmark and Jimenez sprang to their feet.

"By that you mean?" questioned Bradmark.

"That you had better get out of here this minute. I've come all the way from Comancho to-night to tell you that there is a band of rurales coming this way."

Edgar C. had stepped into the room. Jimenez had moved toward the door. Bradmark and Edgar C. had been talking in English, and it was evident that Jimenez did not understand all that was said. He asked Bradmark what the trouble seemed to be.

"Rurales," answered the mining man.

Jimenez's face took on a cunning smile.

"They may be our men," he suggested.

"They may be your men," said Edgar C., "but I'm sure that Mr. Bradmark does not care to see them."

Jimenez closed the door, adroitly shooting home the bolt.

"What does it all mean, Señor Jimenez?" asked Bradmark.

"It means, *señor*," replied the officer, "that I have something to say. You know it is a game we can all play, this plotting. I have played for stakes and you have played for stakes. It means that I am to marry your daughter or you shall probably lose your stakes."

"Speak plainly," said Bradmark.

"These are government soldiers under Captain Romero of Chihuahua. They have a date with me here at daybreak. If you are here when they come—" The gentleman in the uniform gave his shoulders a significant shrug.

"I think," said Edgar C. in English,

"you are being introduced to the double-cross."

Bradmark's heavy jaw had set, his face became very grave, he realized that the Mexican before him was playing a game within a game.

"I have told you," said Bradmark, after a time, "that my daughter is to marry the man of her choice. If you are the fortunate individual, very well, although, in the light of recent events, I cannot help but add that such a contingency would be very lamentable."

"If we are going to get away from here before the grand army arrives," suggested Edgar C., "we must be going. They are following me closely."

"I will bid you good night," Bradmark said to the officer.

"I am sorry, sir," he replied, "I am forced to inform you that you both are prisoners."

The officer was standing directly in front of the door, which he had closed and bolted when the argument began. His hand was on the hilt of his saber.

"Shall we go out of here?" asked Edgar C. of Bradmark.

"Yes," replied the mine-owner, "if it is the last thing I do."

Edgar C. drew his revolver. Taking aim at the officer's chest, he remarked in very correct Spanish:

"I owe you something for the treatment I received the last time I was in this mud house, and I fancy I'm going to pay you right now if you don't step away from that door!"

The officer did not remove his hand from his saber, but with his free hand slowly raised the little whistle to his lips. There was just the intimation of a shrill sound when Edgar C.'s revolver spoke.

The officer staggered back a step and sank to the floor. Edgar C. drew back the bolt on the door and, without so much as looking back, led the way from the house Bradmark followed.

Once outside, Bradmark took the lead He went down one of the winding little streets for a hundred yards or more and turned into a little plaza. Here his horse and road-wagon were standing. The two men entered the little buggy, and as Bradmark drove toward his home, Edgar C. explained to him all that had happened at Comancho.

Bradmark was raving mad. The feature of the whole affair which stirred him the deepest was Jimenez's attempt to force a marriage with Miss Bradmark. The mine-owner was angry to think that the government would send out but fifty men to pick him up.

Just as they were reaching the house Bradmark turned to Edgar C. and said:

"You are a real American, Mr. Ferris, and I forgive you the trick you played me on our first meeting. I believe I can trust you, sir. There is a revolution now under way. The first blow was to have been struck within a few days by Gonzales, and this traitor at Birmijia has upset the program. This little band of fifty soldiers, with fifty more of the federal police here at Birmijia, will try to storm my house. That shows what a poor government we really have. I have six hundred men in my employ, right now. I will have a rifle for each one of them. The first battle will be here at my house or in Birmijia; and since you have gone this far, it will be impossible for you to turn back. I will give you an escort to the border if you like, or you are welcome to remain in my house."

"Oh, now, I say," remarked Edgar C., "if this is to be the first battle of a revolution, I'll stick around."

When, a few hours after daybreak, Edgar C. awoke from the nap he had taken on a real leather couch, he looked out of a real window, and the first thing he saw was Miss Bradmark romping in the *patio* with a Boston bull-terrier.

Looking out of another window on the other side of the room, he found another surprise. In the big lawn, around which extended a high mud wall, were several hundred men. They were smoking, talking, and laughing. Around the wall walked several sentinels. Inside the wall was a row of stacked rifles.

This sight seemed to impress Edgar C with the seriousness of the situation.

"It looks like there's to be real war," he mused. "Hang it all! suppose the government should fall, I wonder what effect it would have on father's railroad?"

For the first time this question came upon Edgar C. seriously. Being unable to convince himself as to the effect upon the I. N. and S., in the event of a rebel victory, he started in search of Bradmark, and found the young woman in the *patio*.

(To be continued.)

The Honorable Out.

BY WILL H. GREENFIELD.

A right-fielder named Yamomato,
A tie in the score—a potato!

HERE'S to you, Yamomato! Wherever you are, *Banzai!* You will always have the core of my soul and the fealty of my heart. You came, you saw, you conquered, and like a wraith of the night you flitted away. Peace and prosperity be with you.

I was managing the Tulips, in a Southern six-by-eight league, when Yamo, as we got to call him, appeared on the horizon with the quick and padded tread of a cat. He had played right field for a Japanese team then touring the States, and owing to the disbandment of the nine, was left jobless and friendless.

Dave Sullivan, my regular right gardener, had quit because of a petty matter of back salary, so I had nothing to do but sign Yamomato; and nothing to pay him after I signed him, mark you.

He was as hungry as a policeman with a free-lunch beat, yet when I told him that fifty cents was all that stood between me and financial annihilation, he took the news with a lightness which was the absolute pinnacle of bravery. But his face and faith haunted me, and I slipped him a quarter, and an introduction to the Tulips, whose hearts were won by his blushing humility and quaint, youthful ways and questions.

They knew him for one to whose soul brutality and unkindness was the touch of death, treating him accordingly, and in return he served and worshiped them as beings of holy scent and luster.

When our diminutive league disintegrated Yamo had won his spurs on the ball-field, and the unwavering friendship of his team mates. Seeing this, I waxed content at heart, and went scouring the land for a baseball team that would furnish a fair guarantee.

Fortune came forward with an extended, but not over-eager hand—fortune in this instance traveling in the guise of the Bradford baseball nine. We played them three games, won all of them, and astonished the natives quite as much as ourselves. The sun of success was shining on our pathway. After an aching sense of uncertainty, we attained to the eminence of good food and lodgings, and a surplus of several hundred dollars.

Pete Hannigan, our only pitcher, abandoned his carefully laid plans to desert us. He was filled with ecstasy at the glimpse of real money, and his heart knew an unwonted brightness.

"Say, Bob," he said to me, "let's play the Bradford team another game for all the cash we have, and then move on to Gordonia. We can beat anything in this neck of the woods, I'm certain. Come on—be a sport!"

After administering a well deserved rebuke for referring to me as a sport in the future tense, I consulted the rest of the Tulips. To my surprise there was only one objection, and that came from Yamomato.

"I individual cannot to Gordonia go," he protested. "Playing there with Japanese baseballers a mobs gathered in a great collection and from the play-field were we driven with insult, and stone, and vegetable. Peoples there the men of my race despise with much hatred."

We all looked in Yamo's direction, speechless for the moment, but his eyes were fathomless. It was utterly impossible to

divine what he might be thinking, or if he were thinking at all.

As we awoke from our trance Pete Hannigan pushed forward, a virulent crimson in his face and neck.

"What in the hotel has your race got to do with it?" he roared. "You go with us, old scout, and if they mob you they will have to mob us. You've got to go, Yamo; there's no way we can do without you. It was your fielding that saved two of my games in this very town."

"Speaking for myself," put in "Deacon" Farrel, the big first baseman, "I have a very strong notion that we must take Mr. Yamomato with us, not as an act of friendship or charity, but from motives of self-interest. He's a better player than Sullivan ever was, and we would be lost without him."

The Deacon's tone was meditative and judicial, and the Tulips all flung him little nods of approval when he finished speaking.

"If Yamo wants to go—he goes!" I chipped in. "We all know that much of our recent success has been due to him, and a more honest man never played the game. He's ample proof for me that all the good don't have their demise in early youth."

"I want to go very greatly, honorable," breathed the little Jap, his eyes shining with delight.

"That's how the matter was settled, sealed and sunk from mind, for the following afternoon we again clashed with the Bradfords, undismayed by the knowledge we had beforehand that a crack college twirler had been hired to down us. The sanguine spirits of the enemy dropped and died ere the game was half over. The Tulips went through their defense like an express going through a railroad tunnel, and while our own miscues were thick as thistledown in August, we trounced them to the tune of 12 to 5.

There wasn't enough glory attached to the game to make a halo for a mosquito, yet Yamo was the bright particular star, besides pulling off a play that impressed umpire and spectators with his invincible integrity.

The play was made while Bradford was at the bat with one man out. There was a man on second, and the batter hit a foul fly near first base. Farrel lost it in the sun, and Yamo came tearing in from right field. The players' benches were built rather close to the base lines. Being provided with a roof, the umpire was unable to see the little Jap when he ran behind the players' shelter to get the ball.

"I have it, sir!" cried Yamo, and the next moment his arm shot into view, the ball clutched in his hand.

Under the dead pressure of ocular demonstration, the umpire waved the batter away from the plate. Then Yamo walked sheepishly to his side, and with downcast eyes said:

"You will a pardon grant me. I drop the ball, quickly I pick it up again to show. The batter is not out until honestly."

That umpire, with reliance in man's honesty totally consumed by experience, trembled at his knees, and his eyes blazed with amazement. He immediately set the Jap down as one of the enigmatic features of human life.

"When did he escape?" he gasped. "Does he ever get violent?"

"Bull" Dorgan, our capable giant of a catcher, fervently hoped that he would never see such a witless thing again, and poured a volley of guttural oaths into the pocket of his big mitt.

When the other Tulips wandered off one after another as if they were searching for the ruins of Yamo's intellect, I could see the little Jap began to feel uneasy, for he knew that in some subtle and inexplicable fashion he had frozen their friendly faces. When I found him his face was bathed in a flood of tears, gushing warm from his sad, almond eyes.

"Yamo," I said heartily, "you played like a hero to-day. We are lucky to have you, and it was really fine and manly for you to admit that you didn't catch that ball. It's always right to play the game on the level. The boys know you did right, but they are so used to fooling the umpire whenever a chance offers that they thought you were currying favor at—at their expense. These games mean a whole lot to them; they're a little anxious, that's all. They are your friends, every one of them."

An expression I could not interpret swept over his face, and then he smiled.

"Baseball is not a cheat; it is all honorable?" he asked

"It is the squarest game on earth!" I declared enthusiastically. "Clean men play the game all over this country, but there are tricks used that might not pass muster with some."

"My play is clean?"

"Clean as a hound's tooth, and I would not have it any other way, Yamo, not even if the boys have to walk home."

When I rounded up the boys I went at them tooth and nail. I explained the situation in a few brief, luminous, and sometimes unparliamentary sentences, and they sought out Yamo and tried to convince him that they never felt a cold impulse toward him. If he thought so he was laboring under a weird hallucination, but if, unwittingly, they had been tangled in any nonsense, it was because his character was too heavenly for their matter-of-fact understandings.

A happy, confident family, we arrived in Gordonia, to find its citizens in a ferment of excitement over the game, but talking as if it were hardly worth while engaging in any extended speculation over the possible outcome. It was a fair assumption that they considered my Tulips foemen unworthy of their steel.

The owner of the Gordonia team was a man named Plucket. He had characterized Yamomato as "a canary-colored wonder with pigeon-toed eyes." Plucket was a short, thick-set, jovial man, a "hale fellow well met" with his associates, but as destitute of humanity as a rock bathed in sunshine.

When it came to arranging the business details of the game, I managed to nail him to an iron-clad contract, a feat not easy of achievement, and only rendered possible by my pretending that I would be overwhelmingly content with the loser's end. I was really singularly favored by chance in catching him in one of his infrequent good humors.

Before I left him he inquired if I would play Yamomato in right field. When I answered in the affirmative he gave a cry of shameless exultation

"The fans will give your canary a warm reception," he chuckled. "These Japs are a lazy, good-for-nothing bunch."

"If our right fielder is attacked for any reason," said I, "the offenders will be adequately punished, and don't you forget it! Why should the fans object to Yamomato. He is a man who seeks and appreciates the finer things of life, and in his own country he is some pumpkins socially."

The day of the game was ideal for baseball. For two hours a steady stream of enthusiasts representing every walk of life poured into the Gordonia grounds. Scores of automobiles and every description of horse-drawn vehicle carried big loads to the scene of the contest, and there was no lack of foot passengers. When time for practise began every available foot of space in the grand stand and bleachers was packed.

Of course the newspapers helped. I had cautiously let them know that if all the planets were in auspicious conjunction with each other, the Tulips hoped to achieve victory, but they were not betting the family plate on their chances. In the Jap in right field, I insisted, we had one of the most wonderful ball-players in captivity.

The papers printed all sorts of sensational stories about Yamo, few of them within heliographing distance of the truth. Naturally everybody wanted to see our right fielder. My press-agent work was anything but artistically crude and intellectually stupid, if I do say so myself.

When the Tulips took the field Yamo was the center of attraction. The bleachers jeered and hooted at him, and the more polite and reptilian grand stand hissed its scorn and contempt. Patrician and proletariat acted as if they would enjoy removing his head.

"Here am I again!" Yamo called cheerfully to the bleachers as he walked into right field for practise, and his voice did not hold so much as the suggestion of a tremor.

Instantly several hundred men and boys leaped to their feet.

"Here we are again!" they chorused, and showered the Jap with overripe fruit, stones, and big, hard potatoes.

When I hurried to the scene with a dozen policemen, who promptly quelled the outbreak, Yamo displayed his strong white teeth in a laugh that held no mirth, and a tear-drop trickled down his brown cheek.

Although I could see that the respectable majority of the fans frowned upon the rowdyism, still a curious sensation of ill-defined fear was uncomfortably present, and I emphatically refused to send the Tulips on the field until a line of cops fronted the right field bleachers. The bleacherites then divided their time and sarcasm with strict impartiality between Yamo and the cops.

Our usually steady battery, Hannigan and Dorgan, lost their equilibrium in the first two innings of the game, and the Tulips came in for a lot of chaffing. I do not mean to say that the beginning was either excusable or explicable. It reminded me

of one of the starts the old 100 to 1 shots used to make at Gloucester, New Jersey, when the surrounding shrubbery sent its citizens to the track with bank-rolls earned by plowing. At any rate, by the time the Tulip battery found itself Gordonia had gathered four runs.

The crowd went wild. Plucket rubbed his hands with a keen relish as he watched the figure go up on the scoreboard. He waved his hand at me and laughed. In his eyes was triumph.

Catherton, Gordonia's clever pitcher, made Tulip bats useless until the fifth inning, when they became infected with the bacillus of industry. With two men on base through clean hitting, Yamo slashed out a triple that scored them and brought Bull Dorgan to bat. There were two strikes on him when he reached out for a bad one and drove it almost on a line over the left field fence.

The score was tied!

A spell as deep and strange as that wrought by some wizard's breath rested on the home rooters. We yelled ourselves hoarse. To us Bull's circuit smash was the sum total of joy—the climax of bliss. I glanced at Plucket. He was in a state of apoplectic rage at everything and everybody, including himself.

In the seventh inning Gordonia hopes revived—but only for a moment. Runners were on third and first, with nobody out, when a Gordonian cracked a short liner over first base. The runners thought that it would fall safe, and tore ahead, but they did not calculate on the speed of the Jap in right field.

At the crack of the bat Yamo plunged forward with the speed of an antelope, caught the ball ankle high, and whipped it to the third baseman, who in turn hurled the sphere fast and true to Deacon Farrel, at first, completing a triple play.

At that particular moment I believe I experienced the maximum of felicity.

When our half of the ninth inning rolled around with the score still 4 to 4, Yamo made them all eye him as a jinnee from an Aladdin tale, and brushed past the cold psychic shoulder that had been held against him.

He drew a base on balls, and on Dorgan's long single to left field he flashed around third and slid into the plate, apparently beating the outfielder's perfect throw. The umpire signaled that he was safe.

A thousand voices rose in baffled anger, only to die down to a buzzing murmur as the umpire held a megaphone to his lips and implored silence with an eloquent arm.

"I reverse my decision!" he boomed. "The runner protests he didn't touch the plate. He is out!"

The crowd sat stupefied. "The runner protests!" ran in puzzled wonderment from mouth to mouth. What could that mean? Surely that Jap was not saying he was out, when the umpire's decision had let him pull out a victory for his own team!

But I knew how it was with Yamomato, and somehow I felt myself possessed by a thrilling sense of happiness. Both teams were gathered about the home plate. I approached the little man in front of them all.

"You didn't touch the plate, Yamo?" I interrogated.

"No, honorable, I did not so."

The words were incisive, calm with the tranquillity of unwarped truth. I nodded complete understanding, and explained matters to the umpire, into whose mind a glimmering of the truth was beginning to enter. Then, seizing his megaphone, I swung around to the wondering, impatient grand stand.

"Ladies and gentlemen," I shouted, "the umpire has reversed his decision, which was that the run counted, at the request of the runner himself, Yamomato, one of the squarest men in baseball. The score remains a tie, and the game goes into extra innings. I want to say, as manager of the Tulips, that Yamomato's correction of the umpire's mistake is only in keeping with his praiseworthy conduct in Bradford, whose newspapers contain a record of similar exhibitions of his sterling honesty, which some of you must have read. We have in all probability lost the game, but that won't hurt so much if you'll be fair to our little right fielder!"

This "impromptu" I repeated to both bleachers, and they gave me undivided attention. At first the fans laughed, but I could see dawning comprehension lighting their faces. They derided, wondered, wavered, and capitulated. It seemed to come to them as the truth came to Saul on the road to Damascus, and when Yamo walked out to his position he was given a generous round of applause.

A few moments later, when he made a brilliant catch while running with his back to the ball, the fans stood up and cheered.

In the beginning of the twelfth inning the Tulips broke the tie, and again it was a combination of Yamo's speed on the bases, and Bull Dorgan's penchant for trouncing the ball that turned the trick.

With one run to the good, Pete Hannigan took his place in the box, resolved to make the result of the enemy's half of the inning resemble the cube-root of a vacuum. He considered the lead enough to turn the water of weakness into the wine of power.

The fading day was rapidly approaching dusk. Pete turned on what speed remained to him and fanned the first batter. The next man to face him singled, and was sacrificed to second.

Now came Mr. Plucket's famous pinch hitter, Bill McGarvey. He was a natural slugger. The bleacherites and grand stand patrons were standing, stamping their feet in unison, beseeching the batter to "kill it!"

McGarvey had an excellent eye, and swung on one of Hannigan's fast straight ones. The bat and ball met with a terrific clap. The ball sailed high and was lost to sight in the descending twilight. McGarvey flew around the bases with the shrieks of delirious thousands in his ears.

Out in right field Yamo sprinted up to the fence, backed off, threw up his hands, and whirled around in time to see McGarvey turning third base. He ran forward about ten yards, stopped, and threw. The sphere went on a straight line into Dorgan's welcoming mitt. McGarvey could not check himself in time to regain third, and Dorgan, grinning broadly, tagged him out.

I would not have missed the scene that followed for all the barbaric pearl and gold of Hindustan. The crowd took our little right fielder on its shoulders and marched round and round the field. When Yamo wriggled away from their friendly hands he was sobbing like a child.

Next morning Bull Dorgan brought me a note. It was from Yamo, and read:

> Baseball has temptations so many, no longer honorable am I. Therefore, I take my quickly departure for far away, probability to home. Hope boys the same place reach with safeness

I'll admit right now that there was a moisture in my eyes as I looked up from Yamomato's farewell.

"He was integrity itself," I said, and if my catcher had been a man of erudition I would have added that I considered the phrase biographical in its aptitude and photographic in its accuracy.

"I thought maybe you'd like to keep the ball that wound up yesterday's game," said Bull, taking a large brunette hand from his coat-pocket. "Here she is, just as she was when I caught it."

And he handed me a big, hard, round potato!

AFTER RAILROADING IN EUROPE.

IT'S popular in the U. S. A. to "knock" our railroads. After railroading in England, France, Germany, Belgium, Holland, Switzerland, Bohemia, Austria, and Hungary, I take back most humbly all I have ever said against an American railroad. Please read, reflect, and retain the following facts:

European trains are slower than ours.

European roads are more expensive than ours.

Their sleepers are a joke.

They are dirty and poorly kept.

They are usually late.

Their "diners" make one weep.

There are usually no reservations.

You make a mad scramble for seats.

You are locked in small compartments with strangers.

They stop a long time at every station.

They punch your ticket at the gate and take it up when you arrive at another gate.

No one shows you your car.

No one gets you a seat.

You hire a porter to take your luggage and trust to him.

They only allow fifty-eight pounds for baggage.

They have no checks. Sometimes you get a thin paper receipt. Excess baggage charges are excessive.

Checking your trunks from your home to your hotel in another city is a dream of the future.

Travelers carry a wagon-load of "grips" and fill up the compartments.

In some places conductors' lanterns are candles in a square glass box.

There are no bells on the engines. They warn with a shrill whistle.

The conductor does not sing out "All aboard," but blows a whistle twice.

Many trains have no toilet accommodations.

In Germany, when a train stops, sellers of beer pass it in the windows.

After the train starts, you never see the conductor. They do not call out stations. You look out for yourself.

We shook hands all 'round when we found ourselves on the "Pennsylvania 24-hour train" bound for St. Louis—all our troubles were over.

The Guild

STARTING A STATE.

Stories Told by Railroad Boys of Oklahoma's Land-Rush Days.

Women Were Active Factors in the Good Work of the Railroads in Launching a New Commonwealth Successfully on Its Career.

BY GILSON WILLETS.

Traveling Correspondent of the "Railroad Man's Magazine."

"ASK ME."

This greeted me on a badge as big as a saucer, which she wore on the lapel of her raincoat. Whether that young woman stood under the hood at the Oklahoma City railroad station that morning to meet a train or just to secure shelter from the downpour, I do not know. All I am positive of is that she displayed in letters of crimson:

"Ask ME"

I smiled. So did she. The sphinx would smile at sight of that crimson bid for one to loosen up and ask questions. Still smiling, I said:

"Looks like a leap-year hangover."

She got back at me, though, for she said: "Even if it were a leap year hangover, it wouldn't do you any good. Your reputation has preceded you. We all know that you write little pieces for the RAILROAD MAN'S MAGAZINE because you are not strong enough to *work!*"

"Perhaps, then," I said, "you will help me to eke out an existence by telling me what it is I am to 'ask' you?"

"GOING BY THE MASON AND DIXON LINE?"

"Up at Muskogee," she said, "they meet every incoming train with a brass band; but here in O. K. City we who meet the trains wear these badges. We're walking information bureaus. As volunteer field-workers, laboring in conjunction with the railroad colonization departments and our local chambers of commerce, we extend the hand of welcome to settlers and answer questions on any subject from boll-weevil to train-connections.

"You will find," she went on, "that nearly every woman, man, and child in Oklahoma wears some sort of a button or badge, signifying that the wearer is helping to boost this State. So I am no rarity as a badge-wearer. Even the Honorable Mrs. Thomas wears one."

"There you suggest my first question," I put in. "May I ask you please to identify the Honorable Mrs. Thomas?"

"She's the whole town of Thomas, on the Frisco, west of here. She named the town before it was a town, and before even the site for the town had been selected. She was on the train—coming in on the land rush years ago. She heard a lot of men in the car talking excitedly as they elected a president and officers for a town which they were in the act of forming in the car.

"'Where *is* this town of yours?' Mrs. Thomas asked.

"'Don't know,' was the answer. 'Most any likely place on this run will do.'

"'Then why not right here?' Mrs. Thomas asked, pointing to an indefinite spot on the prairie. 'Let's stop the train and begin business here.'

"The train was stopped, the men and Mrs. Thomas got off—and before night the town of Thomas was added to the map, with a thousand inhabitants, a bunch of saloons, a dozen law offices, and a daily newspaper. The men wanted to call the place just Tom. But Mrs. Thomas insisted upon her name being used in full.

"The day Oklahoma was admitted to Statehood Mrs. Thomas went to the largest of the saloons with a painted sign. She ordered the owner to put a whisky barrel in the window and tack her sign on it. The sign read, 'Nothing Doing.'

"In Oklahoma, you see, women are not clinging vines. They are, like the men, sturdy oaks. Look at Ethel Ringer, of the Railroad-Stake ranch up in the Cherokee strip.

"Ah! I thought that the name of Ethel's ranch would make you wake up. I tell you of her, of course, because you want Oklahoma vivisected for you along the arteries called railroad lines.

"Well, Ethel made the dash into the Cherokee strip on a railroad-train. It was a Santa Fe train, and something happened that made the officials of the road tearing mad.

"On the train in question besides Ethel were about a thousand people, all suffering from land hunger, for it was during the 'rush.' The crew, too, was land hungry, as I will show.

"Up to that time the railroad up there was just a streak of rust, going nowhere. But that day the rails began going somewhere, for people dropped off along the line, and before night a dozen towns were doing business.

"Now, when the train got far out on the prairie, Ethel jumped off—and so did two of the brakemen, along with hundreds of land-grabbers. Those brakemen live up near the Railroad-Stake ranch yet. Their names are Ben Greer and Al Wolf. They, each unknown to the other, had selected claims beforehand. And now, when they rushed from the train, Ben Greer and Al Wolf and Ethel Ringer, all three, drove stakes on one claim at the same time.

"The two brakemen looked at Ethel, and then at each other. Then Ben jerked his stake out, bowed to Ethel, and looked daggers at Al. Thereupon Al withdrew *his* stake and bowed to Ethel. Then both brakemen went farther back from the railroad and staked new claims. And that's how Ethel comes to call her place the Railroad-Stake ranch. That was an act of gallantry on the part of those brakemen that should not go unnoticed.

"But there is more of that story. I said something happened that made the railroad officials mad. Ben and Al were not the only members of that train-crew who were land hungry. Every man of the crew suffered from the same trouble. Every one of them left his train and staked a claim. The howling passengers wanted the train moved on across the prairie, but there was no one to move it; and, let me add, that particular train was by no means the only one abandoned by its crew during the Oklahoma land-rushes.

"But now," she concluded, "for further information you just go up to the great 'Ask Me' headquarters, and they will tell

you what the railroads had to do with making this State."

She referred to the Oklahoma City Chamber of Commerce—and it was there that I learned about the importance of the railroads in making this O. K. State.

"Yes," said the head of the railroad department at "Ask-Me" headquarters, "we owe the rapid increase in population and wealth in Oklahoma largely to the railroads. They advertise us and they bring in the settlers. The railroads brought fifty thousand newcomers in the last six months. They tell the country of our resources and advantages, each road maintaining a colonization department for that special purpose. And talk about 'Ask Me'—did you come *via* St. Louis?"

"No. Over the Katy bridge across the Red River that connects you with Texas."

"Well, I ask you if you came by St. Louis, because in the Union Station there is the first 'Ask-Me' man that people meet in coming here from the East. He's Ben Brown."

"Oh, Ben Brown!" I said. "Of course I know Ben Brown. He's the annunciator—the barker."

"That's the man. He's an old circus-rider and minstrel, and he can do a jig for all his threescore and ten. And voice! Say, he'd shame that town-crier which they tell me still does business at the old stand at Nantucket. Well, Ben Brown, as I said, has done more to steer people rejoicing on their way to Oklahoma than any other one 'Ask-Me' person alive.

"Ben has a way of talking to those who 'ask him' at the station like this: 'Yes, siree, this station is the threshold of the greatest State in the Union. I allow you're going to Oklahoma, ain't you? Well, sir, that State has had more railroads built into it in the last few years than any other State.'

"Then Ben will get off his perennial little joke. 'You going by the Mason and Dixon line?' he will ask.

"The passenger will say he's traveling Rock Island, and then Ben will say:

"'Yep! That's the Mason and Dixon line. You see, all the folks settling in Oklahoma *north* of the Rock Island are Northerners, and all the folks settling *south* of the Rock Island are Southerners. And there you are. That makes the Rock Island the Mason and Dixon line of Oklahoma.'

"And, as a fact, Ben Brown is pretty near right in that statement. We've got every State in the Union represented in our million and a half of population and our ninety-six towns of more than a thousand inhabitants each, and, strange though it may seem, Northerners predominate north of the Rock Island rails, while Southerners are in the majority south of the same rails.

"The Santa Fe is our oldest line in Oklahoma, but the Katy came through here fully thirty-eight years ago. The Missouri Pacific, the 'Mop,' as they call it, is an active force for Oklahoma, too, you bet!

"It is to the interest of the railroads, of course, to assist our settlers in becoming

"IN OKLAHOMA WOMEN ARE NOT CLINGING VINES."

prosperous and to keep bringing in more and more settlers on every train. To that end a road will build a station—a corking station, too—somewhere out on the prairie where there is not one human habitation in sight. Then they build a town around that station while you wait."

Thus the "boosting" kept up, each Oklahoman passing me on to another Oklahoman or Oklahomaness, as long as I remained in that railroad-made State

One of the "built-while-you-wait" towns to which the "Ask-Me" man referred is Altus, in Jackson County. At noon on the last day of September, 1908, a freight-train of the St. Louis and San Francisco Railroad pulled into Altus, and Conductor Wendt and the entire train-crew hustled to a near-by eating joint.

When they returned to their train for the afternoon run the engineer climbed into his cab to pull up a few feet so as the boys could load some potatoes. A quarter turn of the driving-wheels, and then—the train stopped as if it had struck a bumper.

Conductor Wendt, perceiving that something was wrong with the locomotive, ran around the pilot, then suddenly cried:

"Take off your power! She's chained to the track!"

The engineer jumped off, took a look, then said: "Some one tryin' to wreck us?"

"Funny way for wreckers to go at it," observed Conductor Wendt.

"NO ONE IS TRYING FOR TO WRECK YOU, GENTLEMEN."

Just then a burly individual loomed up, saying: "No one is trying for to wreck you, gentlemen. I've just chained you so you can't walk off with this train, that's all. My name's Hensley. I'm the sheriff of this county."

"What fool proceedin' is this?" asked Wendt.

"'Tain't foolery," answered the sheriff. "Your road owes my county the sum of two thousand and eighty dollars. The tax-collector told me to cinch the money somehow. Said he didn't care how."

"But look here, we ain't got nothin' to do with that," protested Wendt. "This train is loaded with merchandise for people on this line. They want their goods."

"Can't help it," the sheriff remarked. "This train will stay chained right here till somebody pays me that money."

With that he sat himself down on the edge of the depot platform, lighted his pipe, and would have no more to say to the indignant train-crew. The result was that hours passed, the train was still chained fast, and when a passenger-train came through the crew boarded her, forced thus to abandon their own train.

"We're going for orders," Conductor Wendt told the sheriff.

Next morning Wendt returned with the train-crew. "Look here, Hensley," said he, "I have not come back with orders. I've come back with an argument. Now, the people of this town are telling the whole world that if it weren't for our railroad there wouldn't be no town. Is that true?"

"It is," said the sheriff

"And the people here are allowing that oil would be no good, and coal wouldn't be worth a darn, no matter how many wells you sink nor no matter how many shafts you dig, if the railroad weren't here to transport the products. Is that true?"

"It's gospel."

"And the farmers of Altus are giving testimony that if it were not for the fact that the railroad helps 'em in every way, the yield of their farms would have no value. Ain't that true?"

"Sure's you're born."

"Well, then, Hensley, ain't the railroad the goose that's layin' the golden egg for you folks of Jackson County?"

"Reckon the railroad's a goose."

"And ain't it the golden eggs that's supplyin' the omelets you people are eating day after day for breakfast? And ain't the railroad putting thousands of dollars in the pockets of the citizens of this county?"

"That's a fact."

"Well, then, Hensley, what is the profit in your crippling the goose by chaining us up so that a hundred shippers will suffer just for a sickly two thousand and eighty?"

"Wendt, you talk like a lawyer. Your argument goes. I'll take you off the leash right now. What's that tax-collector making all this trouble for us about, anyhow? I'm one of those shippers you spoke of myself."

"Yes, we knew you had a car of stuff in this train," said Wendt meekly; "but, of course, we couldn't use *that* in our argument, personal considerations having no place in your official point of view."

And Oklahoma City! The railroad station there of the Santa Fe is built, they say, around a pile of baggage and a sarcophagus. On the morning of April 22, 1889, the site of the present "Prize City of the West" was only a watering station for trains. By sunset of that day it was a city of five thousand inhabitants. And the way the new station there happened to be built around a pile of baggage and a sarcophagus was this:

About three o'clock on the day mentioned a train pulled up to the water-tank. It was black with people inside and out, all of them frantically land hungry, except just one lone man, a lawyer from Topeka, Kansas, named Quinton.

When the frantic crowd spilled from the train Quinton stood by the water-tank, taking in the greatest land-rush in history. One of the men scrambling from the train threw his carpet-bag at Quinton's feet, crying: "Keep it for me, old man!"

Seeing this, a second man threw his bag also at Quinton's feet; then a third and fourth, until Quinton came near to being submerged in the avalanche of bags, bundles, valises, and packages.

Trains were arriving at that tank at about ten-minute intervals, and every train disgorged its land-hungry men and women, hundreds of whom added their baggage to the already great pile. Quinton, not caring to stake a claim, stood at his post valiantly, assuming that since so many people put their faith in him, it was up to him to stand by that baggage till death should part him from it.

After the rush many came to reclaim their belongings and to thank the impromptu

baggageman. There were some five hundred pieces of baggage in all, and scores were never claimed. And the new railroad station was built around that pile of baggage, say the Oklahomans.

Where does the sarcophagus come in? One of the men who returned to claim his bag happened to knock down some other man's carpet-bag, which was thus forced open, revealing its contents.

"Say," said the man, turning to Quinton, "this ain't a piece of baggage. It's a sarcophagus."

Quinton looked and—saw the dead body of a baby. Some one, in the excitement of leaving the train and making the rush for a claim, had packed a baby in that carpet-bag and forgot all about it. For the "sarcophagus" was never claimed. And the contents of that "sarcophagus" started the Oklahoma City Cemetery.

I met there the drummer who landed the first shipment of lumber for Oklahoma.

"I shipped the first lumber ever received in this town from the forests of the north," he said. "There were five car-loads. It is still here. There it is." He pointed to a row of red buildings. "Yes, sir, I put that lumber in here even before B. F. Yoakum, or 'Gristmill' Jones, ever saw the place.

"Don't know Gristmill Jones? Why, he's one of the biggest men in this burg. He's the one who got busy before anybody else thought of it to hitch the Territory of Oklahoma up to Indian Territory so as to get 'em received into the Union as one big State. Gristmill Jones is the man who gave this State and city the name 'O. K. State' and 'O. K. City.'

"One day Gristmill Jones sat talking with a group of men over at the Threadgill Hotel," continued the lumber salesman, "when some one said that Oklahoma should have been named Minerva, since it sprang into existence like the goddess from the head of Jupiter, full armed.

"'No,' said another, 'Oklahoma is an Indian name, meaning 'Land of the Fair God.' I've heard old Comanche Silver-Eagle-that-Flies-Above-the-Clouds, say so—and we ought to call the State 'Fairgod.'

"'You ain't on the right trail, none of you,' said Gristmill Jones. 'Seein' that we're near to Statehood, and that Uncle Sam and Columbia is to have a new daughter, that same should be called the O. K. State, while this city should be called O K. City—O. K. being no more nor less than the exact meaning of the word Oklahoma.'

"And to this day Gristmill Jones and a lot of others, including the railroad men, call this the O. K. State and O. K. City. Come in here on a Santa Fe train or a Rock Island or Katy, and you'll hear the brakeman or conductor bawl 'O. K. City!'"

"Statehood Day" will never be forgotten by the men in the Oklahoma City railroad yards. On the morning of November 16, 1907, the minute the news was ticked over the wires that Oklahoma had entered formally into the Union every engineer of the four roads in the yards—each having received instructions beforehand—opened up on whistle and bell and six-shooter filled with blank cartridges till you'd think bedlam had been let loose. To the din of the yards were added the boom of cannon and clang of fire-bell and whoops from forty thousand throats.

Conductor Avis, of the Rock Island, told me of the careful provision which the railroads make in Oklahoma for feeding settlers at railroad stations. Said he:

"We've got a crackerjack eating-place up at Muskogee, for example. One day I pulled in there very late, and informed the passengers that they would have to use a little more than ordinary haste in putting away their noon meal. While the passengers were eating an old Indian came up and looked into the room.

"Now, many of the Oklahoma Indians have money, live in fine homes, and ride in automobiles, while any unmarried squaw can have her pick of white bachelors for a husband, she being usually rich in her own right from rents from her oil or coal or farm-lands.

"After that Indian had studied the crowd at its hurried meal he turned to me, made a sign of great haste, and said:

"'Maybe so white man heap big fool.'

"'Oh, no, Lo!' I said. 'White man eat fast like that for a prize. White man that eats quickest gets prize of purse. Second white man quickest to eat gets silver loving-cup.'

"'Humph!' grunted Lo. 'Maybe so white man think Injun heap big fool. White man never give—white man always take. Great Father at Washington take half Injun's land away. Then big smoke (the railroads) take other half Injun's land. Ugh! Maybe so big smoke give purse and love-cup Maybe so; Injun guess nit.'"

"WHITE MAN EAT FAST FOR PRIZE."

Santa Fe men at Oklahoma City told me how their road managed the great crowds in the land-rushes when Oklahoma was first opened to settlement.

"Our general superintendent at that time," said one Santa Fe agent, "was Mr. Turner. In the rush of April, 1889, Mr. Turner personally handled the trains that carried some thirteen thousand persons out of Arkansas City, Kansas, just over the border from Oklahoma. He started the trains out at a signal fired by soldiers on the State line.

"Some days before the rush men representing themselves to be switchmen and brakemen of our line were selling tips as to which would be the first train out of Arkansas City. When Turner heard of this he announced that no Santa Fe man would be guilty of selling any such information, and he ordered that any man representing himself as a Santa Fe employee and offering to sell any tip should be arrested by the road's detectives. That ended the tip-takers.

"Then the newspaper correspondents went to Mr. Turner, saying that they were not land-hunting, and should receive a straight tip as to which would be the first train to start for the promised land, so that they could be at the front for stories.

"'Your place in the line, boys,' said the general super, 'will be the last car in the last train out.'

"But as he spoke, Turner winked, and the newspaper-boys knew that something was in Turner's head which he wouldn't let out just then, but which would appear in tangible form on the day of the rush.

"When the day came Turner showed the newspaper-boys their car. To their consternation, it sure was the last car in the train that stood at the tail-end of the long line of trains.

"'Get aboard,' said Turner to the newspaper-boys, 'and don't get excited till you get over into Oklahoma.'

"Then Turner began jockeying those trains. He caused the train at the head of the line to pull up a little—and at once a horde of men from the train behind made a rush for what promised to be the first out But Turner side-tracked that first train, and a second pulled up ahead of it on another track. Then the second was also side-tracked. Turner kept up that process till he had shuffled the entire deck

"And on the new deal the train that had been last came first, and the first came last—and that's how Turner managed it so that the newspaper-boys got into Oklahoma on the very first train, yet managed it in such a way that no one could know beforehand where he was at"

An Amateur Banker.

BY H. M. LOME.

Cliff Puckle Grows Tired of the Humdrum of Railroading and Ships Aboard a Cod-Fisher Out o' Gloucester.

IT started with discontent with the things that are; it progressed by reason of the highly colored literature and lectures of a naval recruiting party that visited Buffalo Bluffs; it ended in the manner set down in the narrative that follows. By "it" is meant the brain-storm that set Cliff Puckle yearning to exchange the deck of a smooth-running Baldwin for the deck of a ducking, squirming, seagoing craft of some sort.

Man wants but little here below, but he wants that little various. The monotony of good luck is almost as hard to bear as that of bad luck. Cliff discovered the truth of this adage during his four years as a fireman on the West Branch and Buffalo Bluffs road.

Outside of a no-account rear-end collision that barely snapped the snores of some of the light sleepers on the accommodation that Cliff was firing, and the occasional turning into beef of a trespassing cow, there hadn't been a thing to jar or mar the even tenor of his working hours. More than that, he had no women folk to furnish the mental friction that is sometimes unpleasant.

"A wife, Cliff, is something like the fleas on a dog—she gives exercise and increases your circulation," said Billy Sleavey, the throttle puller of 18, when, one day, they were discussing the pros and cons of matrimony.

Billy had been wed thrice and so was somewhat of an expert on the topic.

"Part of her business is to stop your think-wheels from sticking on dead-center," he went on. "A married man learns to realize that there's air-flaws in the soundest of his beliefs, thanks to his wife. This keeps him from being stuck on himself and makes him charitable to the ideas of others and doubtful of his own. Consequently, he's more agreeable to his fellows than the bachelor, whose bars are caked and choked with clinkers of his uncontradicted conceit. You take my advice, and pick out a girl for yourself, and if she's half as good as my two departed were, and my present one is, why, you'll learn to sift your arguments before you swallow 'em. I'll bet a month's pay that she'd knock this fool plan of yours about turning sailorman out'n you within a week of your coupling up at the altar."

But Cliff, neither desiring a wife nor the squelching of his yawpings for "a life on the ocean wave and a home on the rolling deep, yo! ho!" gave no heed to the advice, but, instead, turned to Tommy Slither for sympathy and counsel, for the reason that there was a half-way tradition on the W. B. and B. B. road that at one time Tommy had smelled salt water and had even been on a voyage "out Boston way," as it was vaguely stated.

So one afternoon, when Tommy had put No. 3 to bed—he being the handler of her levers—and was strolling toward the Rest Hour House just outside the yard, Cliff overtook him. After some dodging over the conversational points, Cliff told of his yearnings.

The grizzled engineer looked at the fireman with wonderment and amusement.

"What in the name of blazing bituminous put this notion in your head, boy?" he asked.

"I dunno," replied Cliff as they sat at

one of the tables of the Rest Hour. "Just feel like it; nothing else."

"Kansas born, weren't ye?"

The fireman nodded.

"Ever been east of the old Miss?"

"Nope."

"Never seen the sea, eh?"

"Only in pictures—moving pictures."

"Know the lakes?"

"Heard the boys talk of 'em."

"What were your people before ye—where did they come from, I mean?"

"Mother was born on a farm near Salina; dad's folks were raised in Texas. But what's all this to do about my trying a spell of sailor life?"

"I was thinking maybe that ye come by the wish for lobscouse and salt horse honest; got it from some of your grandads, perhaps; but it seems that you ain't. So I advises you to get shet of it and stick to the shovel."

"Why?" Cliff's voice bespoke his disappointment.

"If the salt was in the blood of ye," said Tommy with much deliberation, "ye might stick out a v'yage although ye mightn't enj'y it. But as ye seem to come from shore-going folk, a trip on a windjammer would be—well, you know what Sherman said about war!"

Cliff did not reply, and Tommy went on:

"I'm now supposing that ye're hankering for experiences on a real ship, not on one of them floating combination-sleeper-dining-car-observation-parlor affairs that they call liners, nowadays. If ye ship on one of these, ye've got to be a mechanic and live your life tinkering with the machinery in the guts of the craft; or a steward, and turn your hand at bed-making and setting out of tables; or sit in with a parcel of stokers. There's no real sailor work on these here craft, you know."

"But there are still real ships, ain't there?" queried the fireman. "Ships with foretops and mainsails and forecastles, and all the rest of it. They ain't all steamers nowadays. The naval party who give the lecture last week showed a picture of a three-masted cruiser with the crew hanging out on the sticks that go across the masts."

"Yard-arms," corrected Tommy. "That was a practise ship where they teaches the young idea how to stow hammocks and hang on by the eyelids. There ain't a sailing ship on the navy list, but the boys have to learn all about 'em just the same. To come back to your question, though; there are a few old-time canvas-pluggers left coasters mainly, and fore-and-afters at that—"

"Meaning?"

Tommy sighed. "Ships that haven't yards on their masts. Consequent, no square sails; consequent, too, sails that run fore and aft—from one end of the ship to the other, 'cept when she's running before it or has the wind on her quarter."

"Meaning?" repeated Cliff.

"See, here," said Tommy with a touch of irritation, "I ain't no nautical kindergarten. If you want to know more, you ship, and you'll be taught all you want to know at the end of a rope or sea-boot!"

"I wish I could ship; I'd take chances on the lickings," declared Cliff.

"It's one best bet that it would medicine you—clear your system of these fool ideas that's clinkering it. Then you'd see that you was out for a diamond-digger and not for a shell-back."

"I wish you'd help me take my medicine, then," retorted Cliff with a grin, "this here wish of mine to feel the heave of the ocean under my feet—"

"More likely in your belly!" snorted Tommy.

"And to be one of a crew of merry tars roaming the wide seas, care-free; visiting far lands; seeing strange people; having strange experiences; gratifying the eye and stocking the mind with—"

"Aw, stow it!" growled Tommy. "Where you been reading that truck?"

"It ain't truck," declared Cliff indignantly, "it's what the books that the naval party gives out says."

"Humph! Well, it ain't for me to blame Uncle Sam for writing poetry about the joys of boarding on a steel craft in which you roast in the tropics and freeze further north; but the—what did you call 'em—the 'merry tars' might have something to say about it that would rub the varnish off the picture. Anyhow, when this joyful picnicking that this here poet talks about has to last for four or seven years, whether you tires of it or not, it kind of gets monotonous, especial when the scenery is mostly water."

"Have another drink," said Cliff in default of something to say in rebuttal of the inference of Tommy's remark.

"Now, if I really felt that I was called

on to make a mule of myself," resumed Tommy after a pause, "meaning thereby to chuck up a dry-land job of a steady kind for a wet-water position of an uncertain sort, I'd sign articles for a short trip on a sailing ship. I'd be sure of l'arning something thereby, and the experience would be short."

"You've hit it, Tommy," cried Cliff. "That would suit me right down to the ground. But how am I to go about it? I don't know a soul that would give me a heft up on the proposition."

"Oh, yes, you do; provided that the salt-water bug is really eating you."

"He's chewing my knees, Tommy," said Cliff with touching earnestness.

"Well, then, if that's really so, I may help knock this foolishness out of you. I've a cousin who owns a schooner up at Gloucester, Massachusetts. He's in the cod-catching business. Goes to the banks of Newfoundland three times a year and loads up with fish; comes back and sells out the catch. I was with him for nearly two years. Tough life it is, but healthy and warranted to try a man out. If you like, I'll write and see if he'll let you sign on for a trip. You won't be worth a handful of salt to him; in fact, you'll be an infernal nuisance on board, but, Nathaniel, maybe, 'll take you along if I ask him as a special favor."

Cliff held out his hand in speechless gratitude. Tommy took it, while a grin began to expand his features.

"I'm thinking, boy, that you'd better keep your handshakes until after the trip," he said. "P'rhaps you won't feel like giving me the glad hand when Nathaniel gets through with you."

"Bet a tank of water I will," insisted Cliff. "Shake!"

II

SLITHER kept his promise about writing to the codder and, ten days later, there came a letter in reply.

It was in a big, scrabbly hand; its grammar was knock-kneed, but it came to the point right away like a cod to squid bait.

Nathaniel said that while he hadn't any "pertickler use for parties that didn't know a capstan from a cringle," yet, seeing as how that this here person was a friend of cousin Tom's, he'd find a berth for him on board the Mary S. Collins at boy's wages of eight dollars per month and found. And the greeny had better bear away f'r Gloucester as soon as he could up-anchor, seeing that the Mary S. was to sail for the banks two weeks from date of writing.

This was in the last week of April. Cliff gave the usual week's notice to the company, packed up his duds, said good-by to Tommy and to his cronies, all of whom expressed themselves frankly if unflatteringly about his project. On the evening of May 5, he reached the quaint Massachusetts village.

It was drizzly and misty, raw and marrow-searching—the sort of night that makes you warm up to home and homefolk or, if you're unlucky enough to be a stranger in a strange land, to make you very depressed and miserable.

This was exactly how Cliff felt as he swung off the train, grip in hand, and, in company with a half-dozen other passengers, made for the street exit.

None of his fellow voyagers had "mixed in" with the freedom and good fellowship to which the fireman had been accustomed, but, instead, had exhibited a certain reserve and suspicion of strangers, which excited Cliff's astonishment and discomfort.

He even caught himself wishing that he had taken Tommy's advice and had never started out on the journey. He found himself growing a grouch against the literature of the Naval Bureau.

As Cliff walked up the platform, he became conscious of a far-off, hollow roaring, the like of which he had never heard before. Cliff hadn't much imagination—the business of chucking coal-feed to a hungry fire-box had not developed it in him—but it seemed to him, nevertheless, that the sound had something ominous about it; something that warned of unvoiced perils and strange dangers.

He caught himself shivering.

Just as the end of the platform was reached and as he was wondering whether he ought to hunt up Nathaniel that night or leave the job until the morning, two men lounged out of the shadows and toward him. Each had the gait that comes of promenading the heaving, tumbling deck of a small craft

"Be you Cliff Puckle?" queried the elder of the two, a tall, lean man, whose solemn face was the color of a maple-leaf in the fall. Beneath the chin and around the throat only was a thick growth of iron-gray hair.

In spite of the dim light afforded by a

stingy gas-lamp, Cliff noted that the eyes that went with the face were shrewd but kindly; and that the man's voice was deep and thick, as are the voices of those who breathe air heavy with the tang of ocean brine.

Cliff acknowledged his identity and the other continued:

"I'm Nat Hecker and this be Obadiah, my boy." He jerked his head at the younger replica of himself, minus the chin-whiskers. "Cousin wrote as how'd you be pulling in by this here train and we calc'lated we'd meet you."

The fireman said something about being glad to see Tommy's relatives and held out his hand. Nathaniel placed in it an eleven-inch fist as cold and lifeless as a dead cod.

"Where be the rest of your dunnage?" asked the captain of the Mary S. Collins, eying Cliff's grip doubtfully.

Cliff guessed at his meaning, and produced a brass check. "In the baggage-room by this time, I guess. S'pose I can have it sent to where I'm going to stop," he added doubtfully.

"I reckon I don't know how they fix it on railroads, seeing that I never uses 'em," boomed Nat, "but I guess 'tis as you say. You'll bunk with us to-night, young fellow. We sail on the first of the ebb at one o'clock to-morrow. Tell 'em to send your belongings to Nat Hecker, at Eastern Point. They know me."

Cliff obeyed. On his return from the baggage-room, the trio made for the narrow, winding street that leads from the depot along the shore of the noble bay. As they did so, the roaring sound became more in evidence. The fireman gingerly asked the wherefore of it, and the hitherto silent Obadiah let loose something of a chuckle of contempt.

"It's the sea a calling," explained Nathaniel. "Sometimes it means wind; always it tokens a change o' weather. Some folk 'bout here say that it's calling to those 'bout to be drowned within the week."

Cliff felt a chill start at the root of his spine and slowly travel upward until it set his teeth chattering. He wasn't given to shudders, but the matter-of-fact fashion in which the old fisherman spoke of the doomed was unpleasantly impressive. Obadiah, whether from malice or belief, grunted confirmation of his father's assertion.

Nat Hecker and his son lived in a solidly built, squatty frame-house, so close to the ocean that the northeast gales frosted its panes with salt spray. In front were flower-beds and a trimly kept grass plot. In the rear, truck-patch and a chicken-run The home was surrounded by a stout picket-fence painted white. Nat was a widower, and if the relict of Cap'n Ed Phelps, one of his old friends, had not kept house for him, there would have been no garden and no chickens

Mrs. Anna Phelps—Aunt Anna, the Heckers called her—was a stout, motherly old soul, given to somewhat gloomy converse. During the evening she didn't hesitate to express her opinion of a young man who "flew in the face of Providence, swopping a job on solid earth for one on that there sea!"

The last three words she pronounced with an asperity that set Cliff wondering, until he learned that Cap'n Ed and his only son Amos had been run down by a liner during a foggy night on the banks.

"What set ye sea-going?" asked the elder man in abrupt fashion. This was in the middle of a late supper that had been prepared in honor of Cliff, during which his spirits had revived somewhat under the influence of a couple of cups of tea, chipped cod, and blackberry-and-apple jam.

"I'm dog-gone if I know," replied Cliff with his mouth full of crisp biscuit. "It just come to me till I couldn't rest."

"Well," smiled Nat grimly, "there'll be little rest for ye on board the Mary when we get out'n the cod-grounds and they bite good. I reckon one trip'll give ye yer belly full. Ye'll wish ye were back on the rails again."

"If, indeed, you ever come back," said Aunt Anna dolefully. "We lost eighty-three of our men last season. Every quintal of cod has to be paid for in men's lives."

"That's so," assented Obadiah as he began chanting the fisherman's hymn in a sepulchral voice:

> Oh, Lord, the fleet is homeward bound,
> Give thanks for dangers past,
> But while in harbor we be found,
> Our flags are h'ist half-mast.

"Yes, young man," went on Aunt Anna, fixing the eye of prideful mourning on the unhappy Cliff, "most times when we come home from the banks, the bunting ain't at top of the mast."

The fireman tried to check the tide of melancholy talk by telling of the wonders and charms of the West, but the old lady wouldn't be denied.

"More's the pity that you're turning your back on them there things for the sake of this here sea," she blurted indignantly. "Ef I was your mother, sooner than see you go and get drownded, I'd—"

Cliff shot an appealing glance at his host.

"We'll quit talking about drownding," drawled Nat. "The boy may come back if he has beginner's luck. You'd better turn in soon, Cliff. We'll have to be up and about early, getting the Mary ready to heave anchor and set sail."

Half an hour later, the fireman took possession of what during the daytime was a long locker, set in the side of the living-room. On its top, Aunt Anna spread a mattress and sheets that smelled of lavender; heavy army blankets and a comfortable, for the night was chilly.

"Sleep sound, sonny," said she as she handed him a bayberry candle set in an old-fashioned tin candlestick; "sleep sound. 'Twill be the only comfortable night that ye'll have for many months."

III.

IT seemed to Cliff that he had barely closed his eyes when he was awakened by Obadiah shaking the slumber out of them by way of his shoulders.

"Time to git up," said the youth tersely. "Dad's about. Git moving."

It was scarcely light. The morning, like the night before, was damp and nippy with sea-fog. Cliff was still tired, and he was quite uncomfortable, even qualmy, at the thought of the experiences that lay before him. The conversation of the preceding evening hadn't been of a sort to encourage an amateur "banker," as the Gloucester men delight to call themselves. The taste of the talk was still in the mouth of the fireman, and he didn't relish it.

Besides, it was so early. According to a famous general, at 4 A.M. courage is courage of the rarest. It was now about 4.30 A.M., and Cliff's spirits and pluck were hovering around zero. He found himself cursing the folly that had prompted him to exchange the comfort and security of his old job for the hardships and dangers of a life of the heave ho! kind, and meditating on what would happen if he determined to forswear the Mary S. Collins and all its works at the last moment.

Thus musing, Cliff slowly and dispiritedly pulled on his clothes, fished a clean collar out of his grip, and began wondering if he could find his way to the wash-room at that unholy hour without a guide. A banging at the door of the first room he reached, and the voice of Aunt Anna solved the question.

"You'll have to clear out, young fellow, while I sot the breakfast," she cried from the outside. "There's wash-water and soft-soap and a roller-towel in the weather-house. Stamp her round!"

Wondering what the widow meant by the ending of her remark, and dreaming not that the answer would be found at the capstan-bar when the crew of the Mary S. Collins was heaving anchor, Cliff found the weather-house and Nathaniel simultaneously. The skipper had just got through with the roller-towel and his face glowed like a frosty sunset.

"Morning," he said.

"Morning," replied Cliff as he applied himself to the wash-basin.

Cap'n Nat answered not, and Cliff became conscious that he was being regarded with disapproving eyes.

"What in thunder have ye h'isted a biled shirt for?" boomed Nat after a pause. "And what's that that ye brought with ye? A collar? What do ye mean by that? Think ye're going to a party? Quit this fooling and put on ship-rig."

"But I haven't any of such, and I sure don't know what you mean by ship-rig," explained the humiliated Cliff. "I—"

"D'ye mean to tell me that ye built fires and shoveled coals while a wearing dude-togs," growled Nathaniel. "Don't you start in on this v'yage with lying, young man; if ye do, ye'll want to swim ashore 'fore ye get through with it! I've no use for they who has no use for the truth!"

Cliff's expression and tone changed on the instant. He threw down the towel, faced the censorious captain, and said:

"Look-a-here, you! I didn't say that I sported white shirts and collars while I was firing! Don't you go for to pop off when there ain't no occasion for it! I got rid of my working outfit afore I started for this no-account fish-village of yours, and I ain't on to what you call 'ship-rig,' savvy? If there's a store anyway handy where I can buy and you'll put me on to

what I want, I'm ready to spend, so I am! And don't say nothing about me lying, 'cause I'm apt to try'n lick you if you do, Cap Cod!"

His clenched fists and flushed face showed that Cliff was quite ready.

The frown left Hecker's forehead and a slow grin revealed the strong, white teeth of the average Gloucester banker.

"I guess I did speak sort of unthinking, Cliff," he said ungrudgingly, "and you took me up as I deserved; but I ain't used to people who ain't bankers, I suppose."

"All right, cap; we won't say no more about it," replied Cliff as his face cleared and his fists relaxed. "And, now, what about the dress-up you 'pear to take so much account of? Where's she to be bought?"

Nat stroked the hairless part of his face reflectively. "I reckon you can be fixed out'n our own stores cheaper than if ye went shopping. Aunt Anna has enough jerseys and nippers and oil-skins and sou'-westers and rubber boots to rig out the crews of half a dozen schooners. Goes to Boston and buys 'em at bargain sales. She also has some good splitting-knives and gutters, muckles, and gob-sticks."

Cliff would have liked to ask what these articles were, but a sense of his ignorance kept him quiet.

"Now for breakfast and then we'll bear a course for the wharf-head," concluded Nathaniel. "There's a biling to do afore we bend the mainsail."

"What do you bend it for—to take the creases out?" asked the fireman innocently.

The captain shot a doubtful glance at the fireman, paused as if to decide whether there could be any human being so dumb as not to know what bending a sail meant, concluded that there was—and then explained the meaning of the term.

"Oh," said Cliff, "that's it, is it? 'Pears to me I've a heap to learn when I gets on board."

"'Pears to me that ye have, Heaven help ye!" replied the skipper pityingly.

Breakfast over, Skipper Hecker rose and motioned to Obadiah to get ready. Then he turned to Cliff

"Aunt Anna'll tell you what you'll stand in need of. You better let her go through that box o' your'n. She'll fix you up with a sea-chest. That one you've got 'd go to pieces first time the Mary struck her nose in a slant of wind. No, you needn't come down 'fore we're near ready to up-anchor. You'd only be in the way of all hands if you did. We'll be back 'fore noon, anyhow, and you can then board her with us."

The skipper and Obadiah rolled to the shore front, Cliff watching them through the little panes of the window.

Aunt Anna, between dire prophesying about men who tempted fate by going down to the sea in small ships, gave Cliff's belongings a thorough "razeeing"—as she termed it, and when he asked the meaning, she eyed him scornfully and "s'posed he'd never heard of a craft being razeed by a nor'easter."

But Aunt Anna knew her business, and when the men returned, the captain looked with approval on the small, strong, home-made and blue-painted sea-chest in which, so the good woman reported, was stowed away the dunnage necessary for a banker, amateur or otherwise. Then she called the old sea-dog's attention to the "sea-rig" that Cliff had donned—a blue flannel shirt, a much-mended jersey, a pair of canvas trousers some sizes too big, and heavy-weather boots.

"Now you seem something like, Cliff," said Nathaniel as he eyed the amateur. "If you'd knowed as much as you look you knowed, you'd do. But—" a shake of the head finished the sentence.

The time came for starting. Aunt Anna kissed the three men impartially, and held Cliff's hand a little longer than she did those of the others.

"If I was your mother," she said, "I'd have ye promise me that if ye come safe back, ye'd never set foot on a deck again."

"Maybe he'll promise that to himself 'fore we've got our kenches of cod," broke in Obadiah with a suggestive laugh.

"Maybe you'll keep that mouth of yours shet," remarked his father. Since Cliff had asserted himself in the weather-house, he had risen considerably in the captain's estimation.

The trio started for the wharf where the schooner lay, Cliff and Obadiah carrying the sea-chest between them, Skipper Nat, with true New England thriftiness, having ignored the hint of Aunt Anna that they board a trolley-car.

"Save money, spend muscle," quoted he, and so they walked.

Cliff was now having his first intimate view of the sea. On the way to Gloucester,

he had caught glimpses of it, but they were broken by intervening embankments or tree-clumps, and the misty drizzle sometimes hid the view outright.

But to-day the sky was clear, the fog had gone with the night, and before him lay the sparkling, illimitable expanse of water, its restless sapphire sprinkled with thousands of whitecaps. Cliff, turning wide-opened eyes on the ocean, felt a queer admixture of apprehension and admiration thrill him.

"Wind nor-nor'west and fresh'ning," said Hecker as he glanced at the sky. "Good running weather, Oby. Pretty lively, though, if it lasts till we get off the lee o' the land."

"Slopping," replied Obadiah. "The old packet'll be picking at the stars with her bowsprit."

A vague nausea seemed to seize Cliff at the pit of the stomach. He had laughed at stories of seasickness, but now, with the sea close at hand, those stories seemed unusually real—quite the reverse of what they appeared to be when he was out in the prairie country. It didn't add to his comfort, either, when he observed that the topmasts of the vessels anchored in the harbor were gently describing the arc of a circle.

"Here we be," said Cap'n Nat as they halted by the side of one of a half-dozen small but sturdy schooners moored to the wharf. He looked at Cliff for the approval that was evidently expected from the new hand. The fireman nodded, but his nod belied his feelings.

Up to that moment, he had only had a nebulous idea of what a schooner really was. In a sort of hazy fashion, he thought that a schooner was similar to a practise ship of the United States navy, a stately thing of three masts and much canvas and many flags and snowy decks and glittering brass-work. Instead, he saw a snubby, dwarfy thing, that didn't look much bigger than a good-sized boat. The Mary S. Collins was a hundred tons burden, with two masts only. Her dingy sails were furled around her booms and tucked untidily along the bowsprit, while her weather-worn deck was cluttered with all sorts of odds and ends. And—wow!—how she smelled!

"Come along," said Cap'n Nat as he swung himself lightly over the taffrail.

Cliff turned a wistful eye on Obadiah and hesitated. The son of the house of Hecker guffawed, and winked at the rest of the crew gathered amidships to witness the arrival of the fireman. Standing on the taffrail with one hand gripping the ratlines, Obadiah extended the other in order to help the sea-chest on board.

Somebody has said that we only dread those perils to which we are unaccustomed. Cliff would readily have taken the chances of hitting gravel safely from a train going thirty miles an hour, nor would he have balked at running a prairie fire with the smoke-fog thick ahead and the heat blistering the cab and blackening the ties, but now—the tide had already turned and the schooner straining at the moorings left a foot and a half clear drop between her soiled planks and the wharf. She was wriggling in an uneasy fashion, too, and it seemed to Cliff that every time he screwed up his courage to the point of boarding her, she shrunk away from him like a bronco that is bit-shy.

"How long be you going to stay ashore?" called Cap'n Nat from the companionway.

"Till next tide, I reckon," volunteered Shag Martin, a big, mild-eyed Newfoundlander.

"Reeve a line from the cross-trees and let the lady have a chair to come aboard with," squeaked Marty Cousins, a little shriveled man from Maine, who had the reputation of being one of the most skilful "splitters" of the Gloucester fleet.

"Man the topping-lift!" roared Big Jim Sands.

"Hitch him onto a squid-jig!" cried the quavering voice of Dad Chiper, the ancient of the crew, and the rest of the crew laughed, because a piece of lead that has a circle of bent pins at its lower end constitutes the article to which Dad referred. It is used in catching squid, but never for hauling reluctant landlubbers on board uneasy small craft.

Cliff glared helplessly and angrily at the men. The language in which they spoke was new to him, but he knew that he was being made a butt. His cheek tingled and his fists sweated with desire to lam his tormentors. Relief came in the shape of Cap'n Hecker, who, returning from the cabin, held out his hand to the fireman.

"Leave the chest on the wharf," he commanded, "and take holt of me. Now, spring!"

Cliff jumped just as the Mary S. Collins

yawed away from the wharf. He missed the taffrail at which his feet aimed, slipped, and the next moment found himself dangling over the side of the schooner, clinging desperately to the mighty hand of Hecker. Before the craft heaved back, the skipper, aided by Obadiah, who had secured a grip on Cliff's collar, jerked him out of danger.

"You're beginning early, young fellow," said the skipper disgustedly as he loosened his grip on Cliff and once more made his way to the cabin. "Keep this up and by the time we're off Le Have, you'll have taken your papers as a first-class sea-pup. Some of you show him the fo'c's'le and where he is to stow his chest"

Several of the still-grinning crew hustled to obey.

Poor Cliff was led to the cramped triangular cave forward that, so he was gravely assured, was the "settin'-room for boarders." It was lit by a smoky sperm-oil lamp that swung and writhed from a big beam. There were six narrow bunks built around it, and in the middle was a rough wooden table and a variety of ship-perfume that had never before assailed his nostrils. Oil skins, rubber-boots, stale tobacco, fried fish, paint, old clothes, burned grease, and a lot of other things combined to make up an indescribable odor. A small but sufficient stove heated the smell so that it seemed to penetrate and stick. What struck the newcomer the most, though, was the crowded condition of the place in so far as the articles it contained were concerned. The bunks were double-deckers, the sea-chests were tightly wedged together, the benches around the table barely allowed one to crawl into his seat, so narrow was the space between them and the table-edge, and every available inch of room was put to some useful purpose. Compared to the fo'c's'le, the cab of an old wood-burner was commodious

"The old man was going to fix ye up in the house," explained Marty, the wag of the crew, "but he reckoned that the rest of us might git jealous and start a mutiny."

"What house?" asked Cliff innocently.

"Hogyoke house—never heard of it?" Marty gave no sign of hearing the approving guffaws that followed his assertion.

"I never did and I allows that you didn't, neither!" Cliff was growing a trifle restless.

"When ye get promoted from cook's help to commander of this here packet," broke in old Chiper, "ye'll swear by the hogyoke, an' ye won't dare to h'ist canvas till ye know she's safely aboard. So don't you go for to saying that Marty an' the rest of us ain't never heard of it. The trouble with parties who don't know nothing about salt water is that they don't believe nothing that has to do with it."

The old salt addressed the last sentence to the crew. Then he turned to Cliff:

"S'pose you don't know that hogyoke is sea-talk for quadrant. Know what a quadrant is?"

"You bet those boots of yours I do," replied the fireman scornfully as he pointed to the enormous rubber "scallogs" of the other. And then he went on to tell of the quadrant of the cab, and his listeners hooted again.

"I ain't laughed so much since a whale fouled Mike Foulain's dory roding last year and run him twenty miles to the southard 'fore he could clear hisself," said Marty, rocking to and fro on the top of a sea-chest. "We'll have to tell Nat of this!"

Before Cliff could retort came the call of "Table!"

Dad Chiper turned to the newcomer.

"Ye'll now take your first lesson in navigation, sonny. Stand by to set the table. Plates, knives and forks in there," he pointed to a locker. "Cups there. Salt and pepper there. Haul and brace handy, for the cook ain't a patient cuss."

"But—" began Cliff.

"There ain't no 'buts' with sailors," interrupted Shag quietly. "Argufying ain't allowed, and this is boy's work. Avast hauling with the jaw-tackle then, and sot the table."

Cliff glanced at the men and read in their faces that he was expected to do as ordered. So with a disgusted sigh he turned to and arrayed the knives, forks, and so forth, as best he knew how. Just as he had finished came another call: "S-a-l-t h-o-r-s-e and f-i-l-l u-p!"

"Now," said Chiper, "you crawl to the galley and take these here mess-tins with you. Get 'em filled by the cook and bring 'em back careful."

Cliff gulped down his resentment. The cook, Sandy by name, Scotch by nativity, raw-boned as to looks, and economical in the matter of speech, looked the fireman over in a manner that wasn't exactly flattering.

"Wha' brought ye on board?" he said,

as he poised a lump of boiled salt beef on a huge fork ere jerking it into the mess-tin.

"My legs, I allows," said the nettled Cliff.

"An' ye left yee're ceevility behind, eh?" retorted Sandy. "Weel, ye've come to nae school o' manners, so ye'll ay be at hame. Toosh, man, where's yer ee'n?"

This was uttered in regard to the howl that Cliff emitted when Sandy, with keen dexterity, shoveled a dozen or so hot baked potatoes over the hand of Cliff, resting on the edge of the platter.

"Where's yours?" growled Cliff as he shook the stinging member free of the clinging "spuds."

"At the moment they are fixit on a fool ish laddie wha had far better be cow-keeping than cod-catching. Awa with ye, or ye'll be having the men pulling the sounds oot of ye for keeping them from their grub!"

"By the great grampus, what's been keeping of you!" cried Marty, as the fireman reached the fo'c's'le. "You'll have to do better than this, or—"

"Or what?" asked Cliff defiantly, as he slapped the tin down on the table and faced the man.

"Never you mind *what*. Only hungry bankers don't allow nobody to cross the bows of their appetites. Shag, what was the name of that breezy kid board the Anita who was forever tumbling down the hatch with the galley cargo? Him who disappeared one night?"

"Foster—Slim Foster. He was cousin to Brit Woolsey, who was boy aboard the Red Sun, and who couldn't keep his hooks off'n the fried pies. Brit was supposed to have fallen overboard from his dory during a fog. The dory was found, y' remember, Marty, but not the boy."

Marty nodded significantly. "Then there was the Saunders boy, of the Nellie Wintrop, and Lobbie Wharton, of the Speedaway, and Otto Ghlein, of the Nicodemus, and Robbie McIntosh, of the Gull, and half a dozen more that I'm thinking of All gone, and nobody knows how. Every one of 'em had a reputation for interfering between men and meals."

"We're a brave people, so we are, but we live hard, and we eat hard, and we make it hard for them as makes our meals uncomfortable," squeaked Dad Chiper. "I've even known a bad cook listed among the missing."

A rumbling chorus of "Aye, aye" followed the sinister remark, and Cliff found himself impressed to the extent of secretly admitting that there was no need of recklessly annoying men who placed such a high estimate on the contents of the mess-tins. So musing, he began to worm himself onto one of the benches, as the salt air had put his stomach on a hungry edge.

Chiper stopped the play of his knife and fork and looked at the amateur with apparent astonishment and anger. The others followed suit.

"Git up!" squealed the old man with such sudden irritation that Cliff hopped from his seat without stopping to ask the meaning of Dad's flare-up.

"Don't ye know that cabin-boys is second half aboard a Gloucester packet?" went on the old fellow. "They eat after their elders and superiors! You must have been dragged up on a farm—you must."

"Seeing that I'm twenty-seven years old, and this is my first trip on a ship," began Cliff, "it—"

"Which saying ain't at all called for," interjected Shag, "seeing that you've got landsman chalked all over you."

"It would hit anybody but a Gloucester cod-trapper that I might be likely to make mistakes. I sure don't want to be running amuck of you and your reg'lations, but I don't stand for no reflections on my bringing up, even if they be made by an old dodder-gluck with a bald head and no teeth!" The aroused fireman glared at Dad Chiper as he spoke.

A howl of laughter greeted the outburst. Cliff had done exactly what the others had been trying to make him do—lose his temper and declare himself.

"Well, we'll l'arn ye," said Chiper placidly when the hilarity had slackened somewhat. "There's always hopes for a boy who's got spunk and a teacher like myself. And now we're through, go tell Obadiah and Flummy that the first half has give thanks, and the second half can now fall in."

"Who's Flummy?" queried Cliff.

"The ship chaplain. Ask Obadiah, and he'll tell you," said Cousins.

"First of all, clear the table shipshape fashion," ordered Chiper. "Pile away them dirty cups and plates, then swab her off with a towel and chuck the tater-skins overboard. After that you can yell for Obadiah and—the chaplain."

Cliff, his dreams of the romance of a life afloat pretty well vanished, did as he requested. Then he went on deck hunting for Obadiah, whom he finally found in the hold doing something to a series of big hogsheads that were stored in tiers amidships. To Obadiah he gave the message about Flummy—and Obadiah sat on a keg and rocked with laughter.

Cliff eyed him for a moment, and repressing a desire to wallop him, made for the galley, where he had left the mess-tin. Picking it up, he made his way to the fo'c's'le, descending the ladder backward. Thus he was espied by Obadiah, whose wild whoop of delight at the spectacle presented by Cliff drew the attention of the whole crew to the latter.

The much badgered fireman was sorely tempted to dash down the tins and go for his tormentors, for his temper was worn to a frazzle, but he held himself in, landed safely, and without waiting for Obadiah, fell to on the eatables.

"Seems to me that your bunch's been getting a heap of fun out'n me since I came aboard," he said to young Hecker. "What was I doing that handed you the latest laugh?"

"Coming down the ladder like a crab going up-stairs backward," replied Obadiah with his mouth full of gravied potatoes

"That all? Seems to me that it takes mighty little to coax a chortle out of you folk."

"I reckon you're right a mighty little thing does it," drawled the youngster. Cliff pondered the true inwardness of the remark, but before he could frame a fitting answer the voice of Dad Chiper broke in:

"Tumble up, Obe. We're going to make sail. Old man says that the amachoor gent can do the kitchen chores and help Sandy peel taters for supper. After that he's likely to want to go to bed –or drown hisself."

With a quavering chuckle the old fellow hurried away. Obadiah, hastily swallowing a cup of coffee and the remnants of a slice of beef, sprang up the ladder and left Cliff to finish the meal by his lonely.

IV.

NOW began a tumult overhead, the like of which Cliff had never heard before. There was thumping, and beating, and bumping, and creaking, and "yo-hoing!" of a continuous kind. It sounded as if the crew was trying to tear off the deck of the schooner. This was followed by a sudden heaving crash, as if they had partially succeeded. Later Cliff learned that the job of unmooring and sail-setting is always accompanied by such a din.

All at once the flooring of the fo'c's'le seemed to have become animated, and danced beneath the feet of the astonished Cliff, who, at this moment, was making his way to the ladder bearing the mess-tins filled with the débris of the meal. Away he flew one way, while the tins went another, their contents scattering in all directions.

Clutching desperately at the table-edge, Cliff managed to save himself from a fall, and even as he tried to get control of his feet, which seemed uncontrollable, there came the rasping voice of Sandy from above:

"Are ye no coming with the things, boy?"

Cliff didn't answer. He was too busy with his underpinnings to take notice of a query from a mere cook.

"Dy'e ye hear, boy!" continued the Scot, descending into the scene of the fireman's disaster. "Guid grief! What hae we here! Hae ye been fechtin? Whaur and wherefore hae ye scattered the preevisions in thus while?"

"I—this infernal boat, jumping as she is, took the feet from under me, and—" he pointed at the spattered oilskins, and benches, and table. Incidentally, he was noting with some surprise and a touch of alarm that the deck had taken unto itself a permanent slant.

"I dinna ken wha ye mean by joomping. She's as steady as the Rock of Mahoo. If ye ca' *this* joomping, wait until we're in blue water, with a snortin' sou'we-ster dreevin' at us, wi' just a rag o' canvas for riding, and twa men at th' wheel. Ye'll then see the wonders of life, laddie—if your stomach holds out. Meantime, buckle to and pick up these pieces. I canna wait longer for ye."

Slowly, and between staggers and clutches at the bunks and table, Cliff tried to obey, but the schooner was beginning to feel the swell of the outside, and his task became the more difficult with the passing of the moments. However, he made shift to clean up, and then, bearing the laden tins, painfully crawled up the ladder, and managed to reach the galley. Even as he did so, there

came to him a feeling as if in her downward plunge the craft had left his interior arrangements sticking somewhere up in the atmosphere.

"Ye're some white aboot the gills, laddie," said Sandy. "I'm dootin' that ye're going to lose yer dinner."

Cliff tried to deny the impeachment, but as he opened his mouth to do so a qualm that seemed to have its birth in his center of gravity seized him. When it let up somewhat his face was running with cold sweat, and his knees were wabbling weakly.

"I guess I don't feel good," gasped Cliff as he felt certain tidal wave proportions begin to swell within him.

"Aw'm theenkin' there's nae guess aboot it," remarked Sandy. "Ye're nae good here. Gae to your bunk—an' would ye like to have a slice of fat raw pork tae suck?"

Cliff turned a horrified and reproachful glance on the cook, paused, and then made for the windward side of the boat as fast as the bucking schooner would permit him. As he did so he heard the rest of the crew hurling sarcastic and scurrilous comments at him. But these he heeded not. Cliff was in that stage of seasickness when all the joy and evil of life is submerged by the flood of misery that is too awful to describe.

Just how long he lay prone on the deck he never knew, but he was vaguely conscious of being bumped and rolled; of his head coming into contact with ring-bolts; of water being thrown over him; of the unkind remarks of Obadiah and Marty, and of a desire that the schooner would founder as soon as possible, so that he might be put out of his misery

In the midst of it all he managed to collect his consciousness sufficiently to cuss his foolishness, and the sea, and the naval pamphlets. Then followed a sort of unconsciousness. When he came from out of it he was in one of the bunks. The first half was feeding its collective faces, and the collection of smells was more rank than ever.

He realized, too, that the schooner was making a series of long, sweeping plunges, with a pause between each, as if she were drawing breath for a new effort, and the interior of Cliff resentfully waited for every new swoop. It was Marty who first caught sight of the opened eyes of Cliff.

"The boarder's woke up, boys," he cried gleefully. "Talk low and don't say nothing about fat soup and bilge water."

Cliff heard and sort of waited to see how his interior would respond to the remark. Much to his surprise, and more to his satisfaction, only a touch of nausea followed.

"Say some more of that talk, you dried rat," he said weakly, addressing Marty. "I want to find out if I'm cured."

The men shouted hilariously, and all broke into the famous "cure," the singing of which is supposed to test the novice sailor:

It's a Yankee ship and a Yankee crew,
With a bully of a mate and a bo'sun, too!
As we was sailing down the river,
What you think we had for dinner;
Monkey eye-balls; codfish liver,
Whale-oil soup and fried black cat,
Raw pork dumplings, roasted rat,
Donkey steaks and dead-horse fat!
Haul away! Haul away!
For drink, we good bilge water had,
White shark blood—it wasn't bad.
Melted blubber, thick and rich.
Runnings from a graveyard ditch!
Haul away! Haul away!

"I guess I'm feeling hungry," said Cliff with a yawn at the conclusion of the song. "There's something about them there verses that puts an appetite in a man."

V.

THE run to the banks was of an uneventful nature from a sailor's point of view, but from Cliff's it was somewhat different. The smart breeze from the nor-nor'west held; the jaws of the booms whined against the masts; the sheets and blocks creaked, and the sails filled with roaring or crashed like thunder as the Mary S. Collins went over on the other tack.

George's was reached and passed, Le Have and Western slid by on the port quarter, the East Light of Sable Island was raised and left behind as a course was shaped for Artimon Bank, and then the bows of the craft were pointed for the last leg of the journey that was to bring them to the cold, gray waters of the fishing grounds.

Cliff was being taught the rudiments of a fisherman's education, the faculty was the crew, with Shag as the "head" and Sandy as "censor."

The pupil, while willing, was wofully ignorant, and there were many scenes in which he played the part of low comedian with a slap-stick accompaniment. As Shag gravely explained, a tickling with a rope-

end was absolutely necessary in order that the names of the ropes, sails and various parts of the craft be impressed on a "greeny."

"I've got to crowd you, Cliff," he explained after one sweating "recitation," "for once we get to the banks, there won't be any time to waste on you and your sour-duff head. Now, we'll have another turn at the ropes, and then it'll be time for you to study fried pies with Sandy.

"Now, stand by to tell how you reef the foresail. Cast off!"

"You begin by pulling in the stick—" commenced Cliff.

"Stop!" roared Shag, as he flourished his rope-end. "What in the name of Davy Jones is 'the stick'?"

"The—ah—boom; yes, the boom."

"And why didn't ye say so before?" commented Shag.

"Sail ahead."

"You pull in the boom—"

"You don't do nothing of the kind. You haul it in."

"You haul in the boom, then let it down—"

"Lower it, ye fool!"

"Lower the boom and tie the rope—"

"Mother of reef points! Say that again, and say it right, or I'll take enough skin off of ye to bait a trawl-line!"

Cliff sighed and tackled the problem anew. "You lower the boom, hook the tackle on to the reef pennant, and lower away."

"Ye're l'arning. What next?"

"Lower until the cringle on the after leach is right down on the boom. Then tie up and hoist up the peak and throat halyards again."

"'Tis fair for a man who's been wasting his life on a railroad," mused Shag, "but ye've forgotten to pass the tack-earing, ye unhappy coal-heaver."

"Shall I try it again?"

"I think not. Now you can take a trot round the deck and see if you've mended the holes in that there sieve that you call your memory. Call off the ropes, or, better still, put your hand on 'em and name 'em."

Under this Spartan method of acquiring ship-knowledge, Cliff soon got a bowing acquaintance with its rudiments. While he was still the butt of the crew because of his rawness, he began to tolerate the life aboard ship, although it was totally different to what he had pictured.

It was a cool morning with a light mist hovering on the face of the water when the Mary S. Collins reached the cod grounds and the long and irregular line of craft that dotted the ocean in all directions. On board all was being made ready for the launching of the dories, a nest of which occupied the main deck of the schooner.

The hooks of the topping lift were attached to rings in the bows and stern of the little boats; water-kegs, a tin fog-horn, a lantern, lines, hooks, and clams for bait, were thrown in, and each dory was gently passed over the side and dropped into the water. The two men who were assigned to each boat waited for the heave of the swell to bring the dory close enough to the Mary S. Collins so they could safely jump into them.

"Dad says you're to couple up with me," said Obadiah. "Can you row?"

"No."

"Then ye'll have to learn. Wait till Chiper and Marty are off, then we'll cast away ourselves."

"Isn't it pretty deep out here for such little boats?" asked Cliff, but Obadiah was helping one of the older men and did not hear.

"Now we'll tumble in," resumed Obadiah, when the others had pulled clear of the craft. "I'll go first, so's to lend you a hand; dad will haul in the topping lift."

He poised himself, and as a wave lifted the dory toward the schooner, deftly dropped aboard. Cliff courageously tried to follow suit, but made a mistake in his calculations, and landed with one foot on the gunwale of the boat. He clutched at nothing, and fell in the water with a great splash

A fisherman who missed his dory was a rarity on the banks. Cap'n Hecker frowned. The incident reflected on the Mary S. Collins and the smartness of her crew.

Obadiah leaned over the side of the dory and waited for the reappearance of Cliff, who came to the surface blowing like a grampus, and swearing strange oaths. Obadiah, requesting him to shut his mouth and keep the sea out, grabbed him by the collar, and with some effort hauled him aboard the dory.

"Nice beginning ye've made of it," growled Oby disgustedly. "We'll never hear th' last of it on the Mary. What in tarnation possessed ye to cut them fool capers?"

"Say, kiddo, do you think I tried to touch bottom because I like it?" asked Cliff angrily, as he wrung himself out the best he could. "The next time—"

"Bear away there, bear away!" cried Cap'n Nat from above. "Ye've lost time as 'tis with your fool nonsense. Get moving, Oby."

"Here," snapped Obadiah, shoving an oar to Cliff, who was sitting aft, "watch me and try to do as I do."

The fireman, still facing the bow, obediently took the oar, and placed it in the rowlock. When Obadiah made a stroke, he did likewise.

"Well, by the sacred codfish!" cried Obadiah, "be you poking fun at me, or are you such a galoot as to think that the boat'll move with us two pulling against each other?"

"I tell you again to quit fooling," roared Hecker from the schooner's deck. "Hook me if I don't come down an' kick the thick hide off'n you." He was speaking to Cliff. "Hit him over the fool head of him with an oar-blade if he tries any more of them tricks with you, Oby."

"Yes, dad," replied Obadiah.

Poor Cliff, with a sigh of resignation and disgust, turned around and tried to row as he imagined it should be done.

"Here," said Obadiah, "you come forward. I'll take your seat. Watch me and follow me—if ye can. You're a bum sailor, you are!"

Cliff didn't resent the remark. He was getting beyond resentment, so he meekly tried to follow the lead of Obadiah. He "caught crabs" twice, and got a smashing jolt on the jaw from the loom of the oar that knocked him backward

"That'll teach ye," grinned Obadiah. "Row short, ye railroad man, row short! Can't you see that sea-oars won't stand for no long strokes."

With aching jaw and weary heart, Cliff tried to take the lesson to himself, wondering meanwhile what manner of men choose codfishing as a means of livelihood. At length Obadiah ceased rowing, bade Cliff do likewise, and threw the anchor of the dory overboard.

"Now," said young Hecker, "you stand by and watch me for a spell. When you think you can do as I do, try your hand, and mind your fingers."

From the gunwale cleats Obadiah took a line with heavy leads and double cod-hooks, neatly coiled on square reels. On the hooks he strung a clam, gave a heaving whirl to the lead, and it shot out and disappeared beneath the surface of the ocean. Scarcely had it done so when Obadiah's arm jerked convulsively, and he began hauling in as hard as he could.

"Bear a hand with the muckle, Cliff!" cried Obadiah. "Lively there; he's a ten tonner!"

Cliff stared at the side of the boat, and more by good luck than anything else, passed Obadiah the muckle, or maul, with which Obadiah stunned the fish before he hauled it aboard. Then he removed the hook from the cod's jaws by means of a "gobstick," and rebaited and recast.

It all looked easy to Cliff, but before he landed his first cod he twice impaled his fingers on the hooks instead of the bait, and once Obadiah had to break the shank of the hook off in order to free him from the barb. Then he struck a "strawberry patch," as the fishermen call the anemones that look like the ripe fruit and sting like nettles, and he finally caught a fair sized halibut, which Obadiah declared meant the end of their fishing luck for the day.

When the count of the fish caught by each dory was made that afternoon, Obadiah and Cliff had "low score," which brought down more derision on the head of the newcomer.

"Never you mind," said Obadiah, addressing the collective crew, "Cliff mayn't be there when the cod is around, but if we was fishing for strawberries you bet he'd lay the rest of you out cold."

Cliff cut himself when trying to sharpen the "splitting knives," got "gurry sores" on his wrists and forearms, caused by salting down the cod, and the friction of salt water and oilskins on the unaccustomed skin; stood watch, and fell asleep standing through sheer weariness; was once lost in the fog in a dory in which he was Marty's helper; had a narrow squeak of being cut down by a reckless liner going twenty knots through a heavy mist; was nearly scared to death by ghostly white grampuses rising by the side of the schooner and "blowing" for fish-heads; learned to relish sea delicacies, such as cod-tongues, "blood-ends," cod-sounds, potatoes fried with pork scraps, and black coffee sweetened with molasses—and he grew fat on the diet.

And as for jokes!

He was sent up to the cross-trees to find the crow's nest. He spent a weary hour

rummaging in the hold for the silver-sand which, so Marty declared, was kept for scouring the anchor. He was given a big iron key and ordered by Chiper to wind up the anchor-watch at midnight, spending some time in company with a lantern trying to locate the timepiece.

He endeavored to bait the ratlines in accordance with orders issued by Sandy, who declared that the rodents were eating up the food. He was assured that when the schooner went into stays all hands assembled in her waist to witness the performance. He was set to work greasing the footboards of the dories so that the crew wouldn't get damp feet when using them. He was requested to haul in a bucket of water when the schooner was changing her moorings and running before a stiff breeze from the east, and the result was that Cliff was within an ace of being hauled overboard by the bucket, which he let go just in time to save himself.

Shag having ordered him to throw the "blue pigeon," which is banker for sounding lead, Cliff nearly threw himself overboard in the attempt. Once he upset the dory in which he and Obadiah were "underrunning" a trawl line, the result being that Cap'n Nat docked him $3.53 for lost lines and fixings. He "got into a scrap" with a Marblehead man during a "schooling" of caplins—the tiny fish that are such capital cod-bait and are eagerly captured in dip-nets. The fleet of dories was engaged in "dipping," when the man from Massachusetts accused Cliff of fouling his mooring. Words followed, and an oar-blade wielded by the Marblehead man sent the fireman into the chilly water.

Cliff rapidly was being initiated into the manners and customs of the cod grounds, still he was looked upon as a Johnnie Raw by the others, and as somewhat of an interloper at that

The bankers are a queer lot. They will not stand for the presence of an outsider, no matter what the motives or intentions of that party may be, unless he makes good in some regard. They don't exactly show dislike to him, but they hold back the right hand of fellowship until he has proved himself

VI.

THE dories were all away from the schooner, and a fog had settled down on the sea. Sandy had asked permission to quit the galley for the boat by way of a change, and Cap'n Hecker had consented on being told that Cliff could take charge of the meal that was being prepared

"All ye have to do is to keep the sounds simmerin' and the water hot for the potatoes, and ye'll begin to peel th' spuds at aboot foor o'clock. At five ye'll put them on to cook. Meantime, yer een'll be on the dish 'o pork scrappin' to see that they'll nae burn," said Sandy, as he clambered over the side of the schooner to board the awaiting dory.

"I'm on," replied Cliff, and then the fog swallowed up the little boat

Cap'n Hecker came slowly up the companionway. He was dressed in a couple of jerseys, heavy rubber boots that came up to his thighs, and a monkey-coat of exceeding thickness—for the temperature of the banks is of a chilly sort.

Presently the skipper lurched over to the taffrail and seated himself. The day before and part of the night had been heavy for the crew of the Mary S. Collins, there having been some ten hours of continuous splitting, salting and stowing of the catch. Consequently the old man began to nod, for in addition to his tiredness the slow heave of the schooner was very lulling. In five minutes he was sound asleep.

Cliff came out of the galley to empty some potato peelings overboard. As he did so the skipper started in his sleep, straightened up, clutched at nothing and went backward into the water—togs and all!

Hurling his potato peelings to the winds, Cliff made a rush aft to where the lifebelts hung, glancing overboard as he did so to see in which direction the tide was taking the captain.

Hecker was just disappearing in a fog wisp that was sweeping over the face of the water toward the schooner, and yelling lustily. He was a good swimmer, but a merman encased in ponderous rubber boots wouldn't have much show in that water.

Without an instant's hesitation Cliff threw off his outer clothing, leaped overboard, and shoving the life-belt ahead of him made for the spot in the fog from which issued the voice of Hecker.

The tide was with him, but the mist seemed to thicken every instant and it was some little time before he got sight of the commander of the Mary S. Collins, who was making desperate efforts to relieve himself of his boots. Finally he steered the

belt alongside the captain, who clutched it gratefully.

"What'll we do now, cap?" gasped Cliff.

"Shout for a dory," replied Hecker with a shiver, for the water was icy. "If one don't come soon, Heaven help us!"

Both raised their voices, but the fog-wreaths seemed to swallow the "dory! dory!" that followed.

Five minutes of yelling for help proved fruitless.

"Cliff," said Cap'n Hecker, "can ye swim much?"

"Pretty well, cap."

"Then you try and get back to the schooner. There ain't no sense in both of us going under. I'm getting friz and I can't get rid of these boots. Go, boy."

The captain's voice weakened as he spoke.

"I'll see you further before I quit, cap," said Cliff between his set teeth. "I stays by this, so I does, and I don't take no orders otherwise, though you be my skipper. I'll try to uncouple them there boots, seeing that I'm smart on the dive! Now, you hold on tight, and when we've sent 'em to the cod we'll start back to the schooner together!"

"You've sand," replied the captain weakly, as Cliff, raising his hands above the water and filling his lungs to their capacity, executed a porpoise dive.

Then the captain felt him fumbling at his right leg; there was a mighty tug and the boot loosened perceptibly. Cliff shot to the surface for a supply of air, and was in the act of disappearing again when they bumped into something big and black that seemed to tower into infinity above their heads. Hecker gave a snort of joy.

"Ahoy, above there!" he roared, the strength seeming to come back to his lungs forthwith.

"Ahoy, below!" responded a muffled voice from a fog-cloud.

"Lower a rope, Kit Simmons, and be handy with it! This is Cap'n Hecker an' one of his men—an' we're both overboard!"

A minute later and both men were on the deck of the Gannet, one of the cod-fishing fleet.

"That there boy has proved out. He's a banker, and it's 'bout time you let up on him."

Cap'n Hecker was speaking to the first half that evening when Cliff was in the galley with Sandy. "The first man who plays gurry with him has got to reckon with me."

"Speaking for the rest of us, I says that Cliff's all right and Gloucester fashion," squeaked Dad Chiper, "and I passes the word along the fleet."

"An' he eats with the first half on the way home," added the skipper just to show that he was in earnest.

Two months later, Cliff, brown and fat, was talking things over with Tommy at Buffalo Bluffs.

"Well," says Tommy, "and does you propose to shake the tallow-pot and the clinker-bar for 'a life on the ocean wave, a home on the rolling deep'?"

"Nope," replied Cliff thoughtfully, 'I've changed my mind regarding the merry tar and all the rest of it. If you goes to smash on a right-of-way, why there you are; but if you comes to grief at sea, why there you ain't!"

INGREDIENTS OF A LOCOMOTIVE.

WHAT is a locomotive made of? It is a question which often exercises the brains of those mechanically minded. Among the raw materials used in the manufacture of locomotive parts may be mentioned coal (chiefly used to make gas for heating the steel furnaces), steel scrap, pig iron, wrought iron, Swedish iron, spiegeleisen, ferro-manganese, red ore, and chrome (all used in the manufacture of different grades of steel), coke, cast iron scrap, and limestone (used for the manufacture of iron castings), black tin, antimony, copper, phosphor, and aluminum. All these are among the ingredients, if one may use the word, that are concocted according to highly scientific recipes in the manufacture of a locomotive.—*Technical World Magazine*

Knowledge is the real motive-power of mass and man.

Honk and Horace.

BY EMMET F. HARTE.

Our Old Friends Make Themselves Understood and Finally Get Back to Trouble.

SYNOPSIS OF PREVIOUS CHAPTERS.

HONK is employed by Jotham P. Stringfellow, of the Honduras Tropical Products Company to boss the construction of fifty miles of railroad from Santa Maria, a coast town in the South, to the interior. Honk chooses Horace as his assistant and, with a crew of sixty-nine construction workers, they set sail on the Belle of the South. After seasickness and other amusing adventures on board, they reach what the captain asserts is their destination. When they have unloaded most of the cargo, they discover that they have landed at the wrong place. They finally induce the captain to proceed. At Santa Maria they meet Addicks, who is safeguarding the company's property. With a formaldehyde blow-gun, operated at enormous pressure, Honk plans to rid the village of vermin. He succeeds not only in killing the bugs, but upsets the huts and drives out the occupants. A detachment of soldiers is ordered out. Addicks restores peace. Honk and Horace receive orders to stop all work and, to while away their leisure, they start to explore the jungle. Losing their way, mules, food, and compass, they wander aimlessly, braving the many terrors of the jungle until hope is revived by the sound of a human voice.

CHAPTER VIII.

Aboard Tuttle's Mule.

IT was one of those impromptu habitations of mankind, such as seem to be the rule that proves the exception in Honduras, built of sticks interwoven with ferns and rushes, and roofed with the broad-bladed grass of the valley. One novel characteristic it had, inasmuch as it consisted of two rooms—most of them have but one.

We had apparently run across a mansion. A two-roomed house and a phonograph betokened little less than a country magnate of high degree.

Through the open apertures which served for window and door, the yellow light from a kerosene lamp shone cheerily. We approached without hesitation. At the moment when we were about to announce ourselves, the music stopped.

El señor, the director of the concert, was changing the records. The usual scratching prelude followed, and then there burst forth the sprightly air of "There's a Big Cry-Baby in the Moon!"

We saw the instigator of it all, as he seated himself at his library table, where he was ostensibly engaged in some nefarious work which had to do with books, letter-files, pill-boxes, and what looked like watchmaking tools.

The man himself was a stubby built person, with a brown beard trimmed to a point, and a shock of tousled hair. He was dressed in wrinkled khaki. I wasn't absolutely certain on such short notice, but he looked like either a Mexican or a Dutchman or maybe an Austrian from Switzerland. We halted in the open doorway and coughed.

The rural grandee, filibuster, revolutionist, or whatever he might be, looked up and displayed a mild sort of nearsighted interest in us.

He arose, sidled circumspectly to the beyond side of the table, throttled the phono-

graph and favored us with his open-eyed regard. And as to that, I've no doubt that we did look a bit mussed and wild and woolly to pop up in a man's doorway unheralded after nightfall. He was apparently prepared for either a fight or a foot-race

"Beanus deuce, Sinner!" Honk said affably, in his best Castellano claro.

"*Muy bien,*" promptly returned the other. "*Y ustedes? Bien venido,*" he continued, bowing. "*Me allegro mucho de ver.*"

It was plain to be seen that we had bumped up against an old-timer with the Spanish idioms and syntaxes.

Honk took the count before the man had hardly commenced. He looked at me appealingly.

"Search me," said I. "Sounds to me like what first comes out of a bottle of seltzer. But maybe he can parley-voo United States. I'll ask him."

I crowded myself to the front.

"*Sprechen sie* English?" I asked, wiggling my fingers and rolling my eyes. "*Americano?* Alle samee Chicago, New York, George Washington, Teddy Roosevelt?"

The man came from behind the table.

"I beg your pardon, gentlemen," he said. "Visitors are few and far between in this part of the country. You took me by surprise. Have seats. I'll call my *muchacho* and have him bring food and drink, and to take care of your animals—I presume you left them at the trail?"

"No, we came on foot," Honk explained. "We've been prowling around in the jungle for a couple of days—those two days seem like a week, however"—and he went on to state a few facts as to our names, business, and general unimportance, while the table was being cleared away for the meal.

Our host said his name was Tuttle—Edgebert Tuttle. He was neither greaser, dago, nor French as I had first classified him. He was a native of Ohio, born and bred in the city of Cleveland. I was really somewhat chagrined to think that I had thought him a foreigner. His business down there in the jungle, he said, was that of an entomologist, or, in plain parlance, a bug-hunter.

The boy, Esteban, brought tortillas, beans, and coffee; also aguardiente and water, with glasses. We drank, but we were not voraciously hungry, having already eaten half a bunch of bananas.

"If you will permit me, professor," Honk remarked, "I should say that you sure hit bugdom when you landed here."

Our host did not respond readily to the implied lightness or flippancy in Honk's tone. His mind seemed more on the plodding order. I set him down as having a serious view of life, and more or less proof against a rapid-fire of quip or persiflage.

I was sure of it when he replied with a sort of ponderous gravity:

"Ah, yes. Quite true. I find many highly interesting varieties of coleoptera, homoptera, and lepidoptera in this neighborhood. I have secured twenty specimens of the curculio imperialis within a stone's throw of this spot. This is considerable of an achievement, when you realize that—"

"Horace and I are both mangy with bugs," said Honk. "We're covered with 'em. All kinds. If you've got an extra shirt and a pair of overalls, I'll present you with my clothes. You might find several new varieties in them."

"That would be unlikely, I'm afraid. I am familiar with the various species hereabouts, and it is hardly probable that you have any but the commoner kinds of wingless pupipara, sub-order of diptera, commonly called ticks, lice, and so forth.

"Some authorities classify the flea with this order, but I differ with them, for this reason, if no other. In the pulex irritans, or ordinary flea, we find a singular construction of the mouth—unique, in fact—consisting of a pair of sword-shaped, finely serrated mandibles which, together with a sharp, needle-like organ, presumably the labrum, constitutes—"

At this point, Honk made pantomimic signs to me, intending no doubt to convey that the man was mildly infested in his attic. When I got my mind concentrated again, our friend Tuttle had finished what he'd been saying. I am in utter ignorance to this day concerning the physical peculiarities of that flea.

"Two years I've been here," urbanely continued our host. "It is a great work. I have already made many valuable additions to scientific knowledge on the subject of entomology. I've secured a number of rare specimens which I have sold to good advantage. The money thus obtained enables me to pursue my investigations undisturbed.

"It is very serene and quiet here. My *muchacho* and I are quite isolated We

see very few of our kind, which is a state of affairs highly to be desired. The ways of men are devious and frequently unrighteous, and of women—bah! Deceivers all!"

Honk elevated his eyebrows in some astonishment. A misogynist, eh?

"Beg pardon?" he said.

and that of my mother, the Beddoes, were among the oldest and most aristocratic people of our State. Naturally, I was peculiarly fitted for a brilliant career in whatever field I might have chosen. After deliberation on the subject, I chose the law and entered the office of Segrist, Miller & Phillips."

AT THIS POINT, HONK FELL ASLEEP.

"I stated that women are deceivers all!" repeated Tuttle hotly. "They are as cunning as serpents and as unscrupulous as the evil one himself. I despise the sex, sir!" He seemed quite worked up about it.

"If it will not offend you," said I, "and if the topic be not too painful, I for one would like to hear more about it. I'm very much interested."

Our host bowed his acknowledgments and bit like a catfish. He passed the cigars, and recounted the whole thriller, from the frontispiece to the advertisement of four other popular new books by the same author, inserted as an afterthought, on the back fly-leaf.

"I went in for the study of law, after graduating at the C. U., class of '91," he began, "and I was making rapid progress, if I do say it, until a woman wrecked my career.

"My family, both on the Tuttle side

I began to wonder if I hadn't started something tiresome when he got that far. His style was far from breezy, I had to admit.

"I met the daughter of Allen Segrist not long after I began my studies in her father's law office, and, gentlemen, she was fair to look upon. But like many another has done before me, I fell in worship before a creature without a heart. She was utterly selfish and deceitful. I paid her assiduous court. I spent my modest income in so doing. She was an imperious, willful, capricious girl and she led me into the most extravagant expenditures of my substance.

"My family was not wealthy, but we had the blood and thereby the *entrée* into the most exclusive circles. We Tuttles could trace our lineage to the Virginia cavaliers. While Marian Segrist came of newer stock, she, too, was of the aristoc-

racy, and she was accustomed to the possession and also the spending of money. She never knew the meaning of economy or stinting. I was madly in love with her—I was not alone in that; there were many—"

At this point, Honk fell asleep and came within an eighth of an inch of falling off his stool as well. He awoke with a wild, haunted look in his eyes and borrowed a match from me. The narrator continued fervidly:

"The future looked bright to me. I found myself contemplating a marriage with Marian and entering upon an honorable career fraught with boundless possibilities. There was, in fact, no limit to the triumphant achievements to which I might rightly aspire.

"It was about this time that my father died. When his estate was settled, I found myself in possession of some ten thousand dollars. With such a sum I felt free to ask Marian Segrist to share with me the brilliant future that lay almost within my grasp—"

As Tuttle reached this heart-interesting point in his narrative, something—it may have been the soothing monotone he employed acted soporifically on me, so I leaned heavily against the table, and made a subconscious sneak into oblivion in the company of a heathen deity by the name of Somnus.

How's that? Morpheus—say you? Not so! Morpheus is merely an attendant around the nocturnal operating-room. Somnus is the big squeeze.

I got clear away—as far as Denver, Colorado, where I had just climbed on board a Berkeley car for Elitch's Gardens, with a coconut-tree in one hand and a wild-cat under my arm, when somebody leading a large brown mule got on, and sat in the seat ahead. The mule kept kicking my shins, and finally I—awoke.

It was Honk who was kicking my shins under the table.

"Come out of it," he murmured in a grumpy aside. "It's my turn."

I saw that he really intended to make an issue of the matter, so I sighed and roused up. Friend Tuttle was still peregrinating with his story. He was introducing the villain at that precise moment.

"As I said, my rival was a gay, debonair, worldly-wise, self-confident, young nobody-in-particular, but there was no question about his magnetism. He was one of the most plausible and convincing rascals I have ever met. And a rascal he was—of the deepest dye. I did not concern myself about his attentions to Marian; she and I had been engaged for some time—"

I must have missed that, I thought, during the interval I'd been car-riding with the brown mule, but Tuttle went right on:

"I had all confidence in Marian. It seems, however, that I underestimated my rival's wily and dastardly nature. He was a broker of some sort at the time; engaged in the buying and selling of stocks and trading in the grain markets.

"He pretended to be my friend—in fact, we became quite intimate. He arranged several little speculative transactions for Marian, in which she made tidy sums of money. And finally, by means of honeyed words and his bland assurance, this false friend set a trap for my undoing.

"On his advice and counsel, I sold wheat short I believe that was what he designated it. Whatever may be the term used to cover such transactions, at the close of my foolish experiment, I found myself penniless. My ten thousand dollars was swept away like smoke before a wind.

"And when, in my hour of bitterness, I turned to Marian for sympathy and encouragement, she scorned me, heartless and selfish creature that she was. Spurned me from her presence, as though I were presuming even to expect her sympathy. She laughed mockingly, and bade me go—that she despised a weakling—that all was over between us.

"I did as she asked. I fled from her presence. In short, I abandoned all my plans, my friends, everything. I heard later that she married my rival. I went to sea. I followed that life ten years; I am, in fact, a master-mariner. And then I came here. But I have wearied you with my tiresome prattle. You must have come far, and it's getting late—"

It was only two o'clock.

"Not at all," I said, yawning. "'S been very in'resting, very! Most remarkable story, 'n fact. Most remarkable. And fully in keeping with what I've always argued.

"Women will throw you down," I continued, awakening a little, "when you're least expecting it, if they take the notion. On the other hand, if they like a fellow, they'll freeze—er—er—"

I seemed to be getting muddled in my logic, so I finished with another yawn.

Honk made very few comments, for once. The subject was a little out of his line for one thing, and he was very, very sleepy. Our host indicated the two bullhide cots in the next room and told us to make ourselves comfortable thereon. Only two or three hours of the night remained, so we did not delay the game by holding a lengthy ceremonial of good nights.

We piled onto those cots and let nature take its course. Tuttle was sitting at the table tinkering with his bugs and butterflies when I lost consciousness.

I slept soundly. Honk claimed that his rest was disturbed, inasmuch as he had secured the short cot in the excitement of retiring, while the one I slept on was long and luxurious.

He said also that Tuttle sat up all night fooling with his insect collection, and that the light from the student-lamp had shone steadily in his, Honk's, eyes all night and kept him awake. I only know that our host was in the selfsame chair at the table when morning came. Honk and I argued about this before breakfast.

"When night comes, it's time to sleep," Honk grumbled, "but some people are funny that way."

I made a cursory examination of the premises.

"The reason why our host didn't go to bed," said I, "is not hard to see, if you'll use your eyes. You and I occupied the only beds there were. Where would you have the man sleep?"

After breakfast we arranged for Esteban to accompany with us, with Tuttle's mule,

THE TRAIL WAS LIKE THE FLIGHT OF A BAT

to Santa Maria. It was somewhat of a jaunt, eighteen or twenty miles, Tuttle said. Honk and I were to take turn about riding the mule, while Esteban walked. However, he would have the privilege of riding all the way back.

Tuttle was profuse in his farewells and invited us to come again. We thanked him and shook hands, and told him to come to see us likewise at his earliest convenience, and all that sort of thing.

"I've become very much interested in your work," said Honk. "Very much interested, indeed. And your odd views of life, as well. Who did you say this—er—broker was, who gave you the wrong

dope, and afterward married your—er—Miss Segrist?"

"That man?" said Tuttle grimly. "That scoundrel's name, did you ask? Ah, it is a name I will not be likely to forget. His name was Jotham P. Stringfellow."

CHAPTER IX.

Sacked.

NINE miles is really a long walk. I say nine miles, advisedly, assuming that it was eighteen miles, as Tuttle said, from his hacienda to the plaza in Santa Maria, and estimating that Honk and I each hoofed half the distance. In my opinion it was farther. A mule in good walking trim ought to bowl along at about five miles per hour. It took us eight hours. Figure it yourself.

However, the trail was like the flight of a bat, somewhat erratic. When they perpetrate a trail in the *dolce far niente* country, they follow the line of least resistance same as in everything else

Esteban had very little English for conversational purposes, so he occupied the time rolling and smoking innumerable, hand-tailored cigarettes—one every two and three-fifths minutes, I estimated.

Garbed in various articles of Tuttle's discarded clothing, Esteban made a picturesque showing. He wore a shirt four sizes too big, trousers at least a foot too long, zapatos secured by binder twine in lieu of shoestrings, and the whole set off by an enormous haycock of a hat.

He strutted ahead, quite unflated with his important mission of guide and escort to the distinguished *Señores Americanos*.

Santa Maria was yet silent in its siesta when we arrived. Save for the desultory yapping of a few curs our entrance passed unnoticed.

A churchyard stillness brooded in the streets; the sunlight glimmered and danced on the quiet waters of the bay. Far out, the smoke from a steamer beyond the rise drifted lazily, a smudge on the lip of the inverted bowl of the sapphire sky.

I SLIPPED TO THE WINDOW FOR THE PURPOSE OF TAKING A SHOT AT THE NOISEMAKERS.

Nobody seemed to be stirring at the bungalow. Addicks lay asleep in his hammock, with a strip of mosquito-net across his face.

"Humph!" grunted Honk "The world seems to have dropped into a delightful snooze during our absence. I notice that the lawns need cutting, too. I wonder what's become of the men? I told them to finish painting that engine-shed, and I see they haven't done it."

I gave a correct imitation of the Latin shrug.

"No hurry," said I. "There's nothing urgent. We have oodles of time," I reminded him, "to paint sheds and mow lawns. What a pudding we've fallen in-

to down here. Nothing to do but draw our breath and our pay. It is the truly artistic life, yes. I think I shall take a nap now. Esteban, old *compañero* de hike—*adios!* Present my devotions to Herr Señor Tuttle when you return."

"*Si, señor,*" said Esteban, lighting a fresh cigarette.

I retired to my own little boudoir upstairs where I soon slept the delicious rejuvenating sleep of the unruffled in spirit. The rattle and clack of a lawnmower being driven recklessly, and the blat of loud conversation disturbed my peace and quiet presently.

With an old shoe in one hand and an empty cigar-box in the other, I slipped to the window for the purpose of taking a shot at the noisemakers beneath my retreat.

Watts was at the steering-wheel of the lawnmower; Schweitzmeyer, lugging a huge tin sprinkler, was engaged in an altercation with McMuir over the watering of a flower-bed; and Addicks, in his hammock under the orange-trees, seemed to be lying in a daze while Honk stood over him emitting a tirade of some kind, of which I caught a fragment now and then, such as "deliberate lie"; "confounded outrage"; "won't sit still and be made catspaws of."

I dropped the missiles. Something of significance must have transpired. I'm not, of a curious or prying disposition, but I make it a point to keep informed on all current matters if possible.

So I went down post-haste.

"It may be three or six months," I heard Addicks say as I drew nigh. "And then your same old jobs'll be open for you. The company wanted that expressly understood. They were sorry they didn't get to see you all, but they were in a hurry, I believe they said."

"Waugh!" retorted Honk. "They think we've nothing to do but loaf around in this Heaven-forsaken hole awaiting their pleasure, do they? I don't think! They're flattering themselves a whole lot. If you want my opinion, the company is a bunch of lying scoundrels. They've fired us, all right—let 'em get somebody else when they get ready to resume building operations—if they ever do."

I felt a sudden sinking amidships. That word "fired" always affects me strangely. Fired, were we? Then we were no longer drawing salaries. What a blow to art!

"What's happened?" I asked

Honk wheeled on me like an impatient steam-derrick.

"A plenty has happened," he snapped viciously. "Stringfellow and his gang of cutthroats have been here during our two days' absence, and they've used the broadax to a finish; discharged everybody on the job, us included, paid the whole outfit up to date, and the men have all gone home on the Belle of the South, with the exception of Watts, McMuir, Schweitzmeyer, and ourselves.

"The ship sailed this morning. The magnates also pulled out at daylight, in Stringfellow's yacht, for Buenos Aires, or Capri, or Auckland, or somewhere, while you and I, Horace, are at liberty to go or stay, just as we darned please. We're no longer needed here."

"How aggravating!" said I fretfully "And is Lon J. fired likewise?"

"Now you've propounded a hard one," Addicks spoke up, with the air of one deeply puzzled. "I'm blessed if I know. I paid no attention, at the time. Seems to me they said my services didn't amount to very much one way or the other, but that they might possibly need me later. They gave me my money up to date, anyhow.

"Whether I'm fired or not is of little moment, however. I like the calm serenity of Santa Maria and I'm comfortably established here, so I'll stick around indefinitely. One can live here at an astonishing cheapness, as the natives say. *Esta bien!* Why don't you all decide to take it easy? It is a pleasant world. *Bebamos!*" which is to say, "Let us drink!"

The suggestion seemed apt. We made the invitation general in its scope, and the six of us strolled across to the nearest quafforium. When we had foregathered, I asked a question for my own information.

"How happens it," I interrogated Watts, "that you three didn't return to the States on the Belle of the South along with the others?"

It was McMuir who replied first.

"There's na fidget," said he. "We're monied men, wi' our pay in our pockets. An' 'tis a guid country, as the lad just said."

"Yah, a goot blace," corroborated Schweitzmeyer. "We dond't like to leaf him av'ile yet, aind't it?"

Big Watts nodded an unqualified indorsement of the sentiment.

"We thought maybe we might try for

jobs on the police force of the town," he confided. "'Twould be easy work, and they need good men for it."

I hadn't thought of it, but the idea wasn't a bad one. Honk, however, was too much disgruntled to take any but a morbid view of the situation. He nursed a grudge and said so pithily.

"You understand, gentlemen," he orated, "Horace and I entered into a contract with the H. T. P. Company to work for them for one year at stipulated salaries—"

"But later accepted increases of the same, thereby making said contract null and void," I reminded him.

He couldn't deny that fact, but it only angered him the more when he remembered it.

"Bah!" he roared. "We've been victimized by this man Stringfellow and his pals. The whole deal is an out-and-out swindle. We came here in good faith to build a railroad. We stand ready to carry out our part of the agreement to the letter. And the party of the other part repudiates its obligations.

"It's an outrage, no more, no less. I despise such methods. For two bits I'd start something, I tell you. Who's the leader of the 'outs' here in this country?"

Addicks said he wasn't certain, but thought it was a man called Mateo, or Gonzales, or some such name.

"We might back the fellow whoever he is," continued Honk, "start a revolution, overthrow the present government, and confiscate the H. T. P. Company's property. It'd serve 'em right, by Jinks!"

Watts, McMuir, and Schweitzmeyer sat up, profoundly impressed with the glorious possibilities of such an undertaking. You could see that they were for it, strictly. The police force appointments faded into insignificance in comparison.

Addicks slid down in his chair, and laughed until a lachrymal flood coursed down both cheeks.

"Go on," he said between spasms. "It's a great idea, let's hear more about it. No doubt the proprietor of this joint is secreted somewhere listening, at this moment, and the word will go forth that a great liberator—or 'traidor,' as the case may be—has appeared. Either a chorus of *vivas*, or the crack of a platoon fire against a stone wall, awaits you. Perhaps both. Proceed, brother. *Viva la Libertad!*"

"Pt t!" returned Honk. "What I said was entirely in jest. Have these people no sense of humor? I am a loyal supporter of the established government and the present administration. President What's-his-name, in my opinion, is a patriot and a gentleman from A to Izzard."

"In that case," said Addicks, continuing to laugh, "you would be considered an enemy to the cause of liberty as represented by Mateo or Gonzales, and as such you will be marked for sacrifice when the next political upheaval occurs. My felicitations, *amigo;* I drink to your health!"

"Humph!" non-committally commented Honk. "I think I'll slip across to the shack for a little siesta. I've just remembered that I'm shy a couple of nights' sleep. Good afternoon, gents."

And he left us, without further ceremony. We watched him depart in solemn silence.

"Then ye dinna think there'll be a revolution?" queried McMuir presently, in a disconsolate tone.

"It is doubtful," said Addicks. "Probably not—this week."

"*Der teufel!*" said Schweitzmeyer. "*Ich wurde gemust haben.*"

"Heigh ho!" sighed Watts disappointedly. "I was just gettin' interested."

After which the three husky filibusters filed out gloomily, and straggled off in the direction of the Esplanade.

Addicks and I, left alone, discussed discursively the Panama Canal, pearl-diving, peach-and-honey as a drink, Hot Springs, Arkansas, baseball as a nervine, the aeroplane in war, and gold-mining in Alaska.

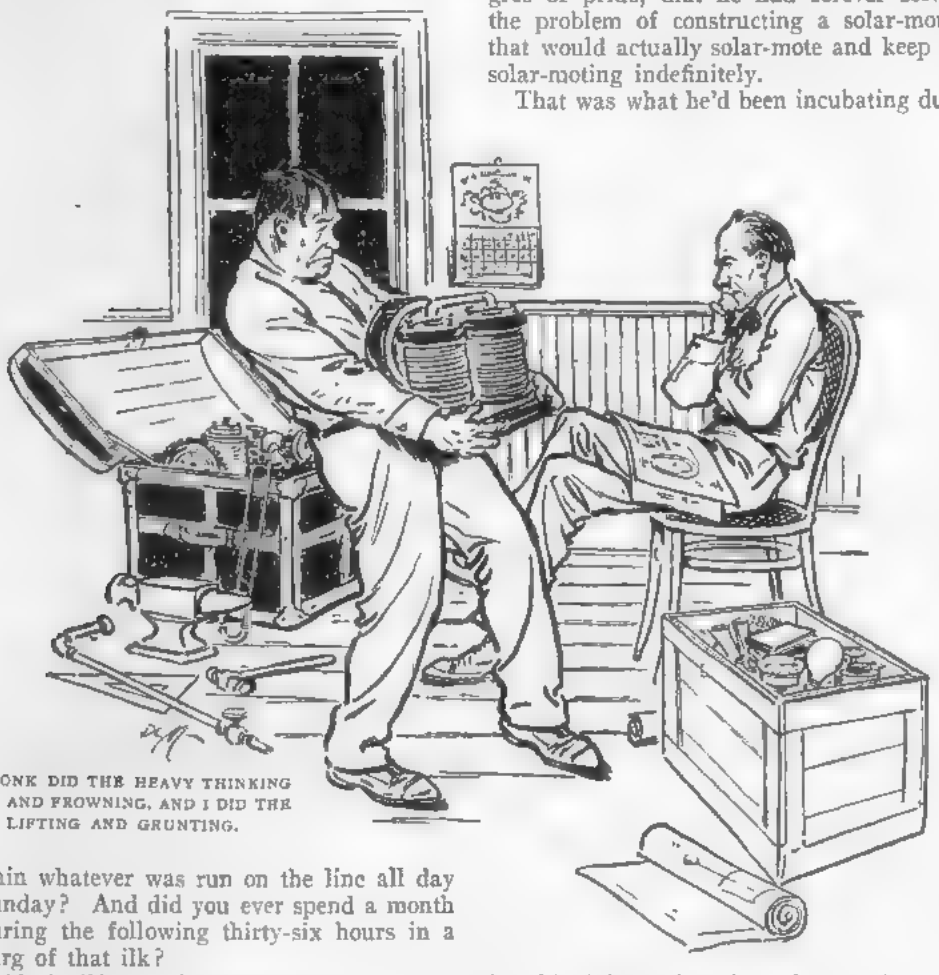
We then adjourned the session, bade each other *buenas noches* with Castilian courtesy, and Addicks reembedded himself in his hammock.

I had expected Honk to snatch forty—or even fifty—winks of sleep, for he no doubt felt the need thereof, but I hadn't looked for him to go into complete retirement.

He locked himself in his room and refused to come out, to communicate with the outside world, except by certain "woofs" of a bearlike description, or even to partake of nourishment, other than black coffee and cigarettes, which he ordered sent up by *muchacho* at intervals during a period of two whole days.

I'd never known him to indulge in so protracted a grouch before.

And during the course of those two days I wandered about, disengaged, and a prey to profound loneliness. Did you ever miss the last train out of a jerkwater western Kansas town on Saturday evening and find on inspection that the time-card showed a cabalistic character which signified that no train whatever was run on the line all day Sunday? And did you ever spend a month during the following thirty-six hours in a burg of that ilk?



HONK DID THE HEAVY THINKING AND FROWNING, AND I DID THE LIFTING AND GRUNTING.

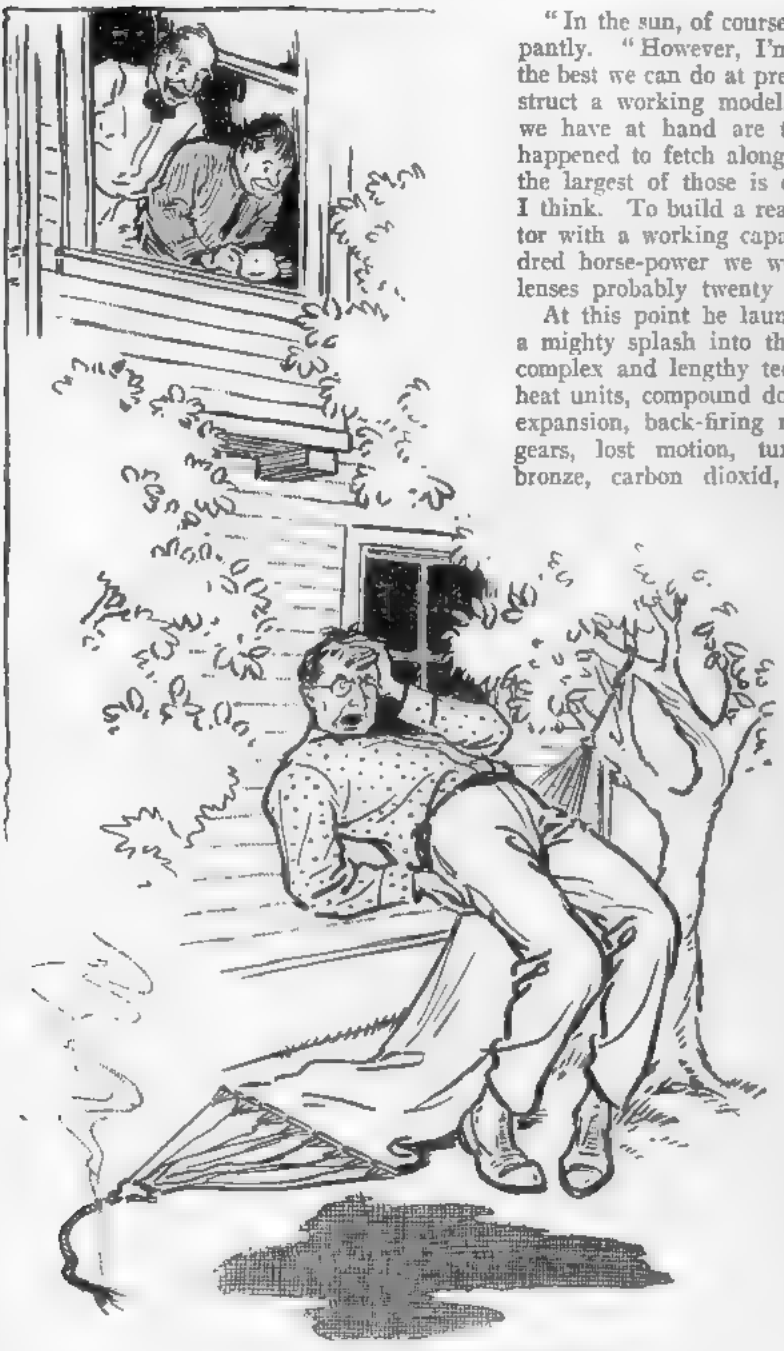
Aha! Then we're brothers. We've both suffered the same sodden pangs of a common misery.

I prowled about the urbs and suburbs of Santa Maria in an ecstasy of dulness. I had no interest or aim in life. To move around gave me an incomparable *ennui*, and to sit still griped my soul with the pangs of a gnawing pain.

I tasted the cup of idleness and found it to be asafetida, and the apple of laziness turned out wormwoody at the core. The town was an incubus, the surrounding country a nightmare, and the sea as viewed from the shore a slough of despond. But—Just before I threw a wampus fit and took to aguardiente for solace Honk came out of his hole. Not only did he come out, smiling and howdy-doing, like an acquaintance that has been away on his vacation, but he announced with no small degree of pride, that he had forever solved the problem of constructing a solar-motor that would actually solar-mote and keep on solar-noting indefinitely.

That was what he'd been incubating during his hibernation, he said. He'd been making blueprints and india-ink drawings of a sun-engine, and incidentally he thought the hatch had been fully commensurate to the irksome preliminary of two days' brooding.

Ordinarily the chances were I might have pooh-poohed such an announcement, on its physiognomy, but in my then highly moribund state of mental decay I hailed the news much as a Dominecker rooster greets the dawn—with loud crowings, flappings, and squawks of indorsement. At that particular time a solar-motor seemed



HE MUTTERED SOME CHARM OR INCANTATION.

the one thing my starving inactivities needed in their business.

"It ought to fill a long-felt want," said I with enthusiasm. "I'll help you build the dog goned thing at once. Whereabouts now would be a good place to put it?"

"In the sun, of course," he returned flippantly. "However, I'm sorry to say that the best we can do at present will be to construct a working model. The only lenses we have at hand are those small ones I happened to fetch along in my trunk; and the largest of those is only twelve inches, I think. To build a really practicable motor with a working capacity of say a hundred horse-power we would have to have lenses probably twenty times as big—"

At this point he launched himself with a mighty splash into the deep water of a complex and lengthy technical diatribe on heat units, compound double-convex triple-expansion, back-firing refractors, multiple gears, lost motion, tungsten, manganese bronze, carbon dioxid, N-rays, and the number of degrees centigrade at which water is reduced to a dry powder.

I waded around in the shallows near shore until he returned to *terra cognita* again. Technically, I am no technologist; I prefer my science broken up with a pick and served *à la carte*.

"Still, we can make shift to build a small sized toy sun-motor, just to sort of pass the time the rest of this week," Honk added as an afterthought in words of one syllable.

"Sure," said I. "To do so will be very diverting and piquant. It arouses my enthusiasm to think of it. We'll build a mimic village, with little wooden people sliding in and out of church, and hay-wagons, and dogs, and chickens, and a

train running through a tunnel, all to be kept going with the motor.

"We can charge ten centavos admission to see the thing in operation, and reap quite a harvest. It would all be profit—"

I rubbered thoughtfully at the sizzle of blazing sunlight outside our window.

"And there's plenty of cheap fuel available," I concluded.

Honk seemed, if anything, rather amused.

"I hope you won't feel offended if I snicker at your ideas, Horace," he said, suiting the action to the word. "But, my dear sir—oh,- my dear sir!—a scientific achievement like a sun-motor has much larger possibilities in it than furnishing motive-power for a penny arcade. No, the hand-to-mouth existence of a ten-cent mountebank does not appeal to me. It may to you, but it doesn't to me. I wouldn't take it amiss, though, if you staked me to a small chew of your eating tobacco."

The controversy being thus amicably adjusted, we proceeded to unpack Honk's trunkful of gimcracks and to roll up our sleeves and get busy. Honk did the heavy thinking and frowning, and I did the lifting and grunting, so to speak.

Between the two of us we soon had the second-floor front parlor of the H. T. P. Company's ex-officio headquarters building, that we'd pressed into service as a workshop, looking like the abode of a perpetual motionist.

Now, if you'd like the description in detail of the construction of the first Simpson sun-engine, I will—you don't care for it? Oh, very well. That simplifies the matter for me.

The work beguiled us when we might otherwise have languished in morose or quarrelsome humors, during that period of necessary waiting for a ship to carry us north. It saved us from ourselves and each other, for I've no doubt that if we hadn't kept busy that week we'd have scratched each other's faces over some trifle, so upsetting is enforced inaction on the energetic Anglo-Saxon spirit.

When I felt an inclination to hold an autopsy over the loss of that hundred and fifty, or seventy-five, a week, I had but to engage myself in some trivial experiment of a semiserio-scientific nature to dispel the morbid fancies that threatened

For instance, I connected up a cluster of dry cells with a pipe wrench on a chair and a sheet of boiler-plate on the floor, and Schweitzmeyer's look of surprise, consternation, perplexity and indignation when he picked up the wrench amply compensated me for my bother.

My most interesting experiment, however, was entirely impromptu and unpremeditated. We had a trio of bulged-out windows in one end of the workroom; they overlooked a part of the bay—hence the name bay-window applied as a generic term. Addicks's hammock, usually with him in it, was swung just beneath this bay-window between two immemorial orange-trees.

One sunny noonday I stood our biggest lens in the window casement momentarily while I manufactured a cigarette and admired the view. After a few seconds I heard a thump, something like when the pumpkins begin to fall from the trees in late autumn.

With ready acumen I traced the sound to its source, instantly, and saw Addicks picking himself up from where his swaying couch had deposited him when the rope that held it suspended suddenly parted.

He muttered some charm or incantation, dusted himself off, and proceeded to repair the sundered strand by lifting the severed ends and tying them together in a clumsy, landlubber's knot. He then reclined himself luxuriously to resume his snoozing.

This time I observed the mishap with my own eyes. A curl of blue smoke arose from the knot in the rope; then it parted with a rush; and down went Addicks for the second time with another resounding thump.

He commented on the matter freely—in fact, I may say, unreservedly, in both Spanish and English idioms.

Meanwhile I marveled at what I had seen. Ha! 'Twas a mysterious affair, truly. I felt more or less goose-pimply over it, for a minute.

I had actually watched that rope burn in two, consumed, as it were, by fire from some invisible and decidedly spookish source. It was enough to make one feel creepy.

And then I happened to think of the lens. Bah! The mystery was solved. What a commonplace cause for so startling an effect after all.

The old sun-and-burning-glass gag that has been the perennial plot for short stories since the first amateur scribbler scratched

the original version on a clay tablet with his thumbnail in the year 1912 B.C.

I chuckled amusedly.

"What's up?" asked Honk with his habitual inquisitiveness.

"Come see," said I. "I'll demonstrate it for you. It'll be easier."

Addicks, bending over with his back toward us, was mending the broken cord for the second time; he stood just out of line of the invisible heat ray.

I moved the double convex glass disk the sixteenth of an inch

Addicks leaped into the air with a wild yell, clutching at that portion of his anatomy which had been exposed to the concentrated smiles of old Sol.

"Fire and brimstone!" he shouted. "I'm stung or shot, or something!"

Honk let out a bray of discordant merriment which gave Addicks a tangible clue to our whereabouts as well as a fairly clear idea of the source of his discomfiture.

He shook an accusative fist and limped off in the direction of the nearest *pulperia*.

Such incidents as these may seem trivial and puerile when viewed from the vantage of the North, where the hurry and bustle, the whang and bang of traffic on busy streets, and the whoop and hurrah of life prevail at all times; where the tide of endless comings and goings, of fights, frivolities, successes, failures, hardships, and easy money—always amid the blare and fanfare of trumpets—is ever at flood; and where, happily, there's something doing every minute out of the fourteen hundred and forty.

In Santa Maria, though, such things were very exciting and eventful. No mere dog brawl could compete for actual human interest.

I may as well state, last as first, that the solar-motor wasn't completed as we had it prearranged. It pleased the unfathomable whim of an unguessable Providence to jumble the cards and jiggle the board at the inopportune moment.

To me it was but another evidence of that ancient jealousy, existent among the gods who browse around the crags and gullies of Mount Olympus, which is directed, and always has been directed against the works of men since time first began to be reckoned

The sentiment is very feelingly expressed in the words of Oleander, the shepherd poet, afterward unluckily drowned while taking his annual bath in the Pond Asinorum, at Rome, Italy. The translation is *verbatim et nauseam*.

'Twas ever thus, from childhood's day,
The best-laid schemes o' mice and men gang aft agley

Thursday night of that week, some time between curfew and dawn, a long, sharp-nosed, sleek-looking craft put into the harbor and lay lazily at rest, in plain view of anybody that had energy enough to look when the sun rose out of the sea in the morning.

I do not mean to insinuate that Honk and I were up when this solar-marine exhibition took place.

We arose an hour or two later. It was then light enough to see the word "Imogen" neatly stenciled abaft of the vessel's wishbone.

From the wicker deck-chairs, striped awnings, the glint of brasswork and the general air of spickness and spanness, I judged that she was neither a fruit steamer nor one of those vagabond tubs they call a tramp-freighter.

Her smokestack was painted white with a black band around the middle. A couple of what looked like gasoline launches, or street-cars, or something, covered with canvas, reposed on the rear deck. A blue pennant with some kind of a monogramed device in gold upon it fluttered from a flagpole up front.

While we took stock of these details there was nobody in sight on board. Directly afterward little doors opened here and there, hatches unhatched, and the cabin spat forth upon deck a regular furor of female figures in white duck suits and yachting caps, carrying parasols, fans, field-glasses and similar miscellany.

I counted five women for sure, and one that looked like a man. Orders were given and several sailors, or employees of the ship popped out of another hole somewhere and ran to lower a skiff that dangled over the side.

"They're coming ashore," said Honk in the manner of one who had discovered something that no one else even dared to suspect.

"Oh, are they?" I returned. "Thanks. I had a notion they were about to run a foot-race across the bay."

(To be continued.)

His Ghost-Dog Yarn.

BY HERBERT MACALPINE.

Why the Hobo Fires Do Not Twinkle Any More Below Big Mountain Fill.

"SPEAKING of hobo-camps," said the old engineer, "I'd like to understand about the one below Big Mountain fill. It's a regular little picnic grove, sheltered by the curve of the fill and hemmed in by swamps so it can't be reached except from the tracks. An old tramp told me once that it was known to the profession as the best camping spot east of the Rockies. As far back as I can remember, when you rounded out onto the big fill you'd always see the hobo fires twinkling down there. I used to watch for 'em—they looked kind of cheerful after pounding over the mountain; but they all went out one night a few years ago, and none have been rekindled since."

"That's right," said Harney, the conductor. "There hasn't been a bloomin' bo stopped there since that night. Did you ever hear the yarn old Jake Mendholm tells about it? They were stalled on the east end of the fill with the 802 and a green fireman pushing 'em that night, and he happened to be looking down toward the swamp when the night-line came out of the cut, and he says her headlight showed him a bunch of men digging a grave an' a body lyin' on the ground. He says 'twas plain as could be for a second—he seen 'em jump an' throw their tools when the light struck 'em."

"That don't account for the camp being abandoned," said the old engineer. "They'd not be scared out by a murder. I'll bet there's been more than one down there."

"All out!" called the night-operator, sticking his head out of the office. "They've got one track clear, and you can go ahead to the tunnel and call for orders. It was a couple of tramps riding a lumber-car that were killed."

"They'll not be missed," remarked the engineer, as he pulled on his gloves. "I'm hanged if I wouldn't like to know why they take such risks. What is there in it for 'em, anyway, and being so reckless and devil-may-care as they are, why do they cut that camp?"

There were an unusual number of small cooking fires on this particular last night, for there was a big feed—a fitting farewell supper, although the guests of the evening did not dream that it was the last their kind would ever have at this famous open-air hostelry.

That afternoon the men who worked the town for "hand-outs" had been successful, and a starlight committee detailed to raid the sweet corn patch on the flats had found a case of eggs which an unfortunate expressman had left outside the depot.

To properly top off such good luck the cash assets of the crowd were pooled to procure a good supply of beer, and the unlucky ones who could not entertain with song or dance were compelled to merge the small fires into one big blaze and keep the cans coming from the kegs on tap by the spring.

It was well toward midnight when a dance by a little dried-up French Canadian brought forth an enthusiastic encore, to which he graciously responded with a wild song of the lumber-camps. As the last note died away the long-drawn howl of a dog came from the hills beyond the swamp, and its effect upon the singer was startling.

He leaped through the circle lounging

about the fire, and almost pushed into it in his eagerness to get away from the black ring of darkness outside

"All right. It's all right you make fun of me," he said in reply to their guying. "The devil, he got my gran'father an' my father, an' I know he's goin' to get me, too, so I don't fear him. What's the use? I don't be afraid of any man. I'm one pretty bad man myself. Why should I be 'fraid of any one else?

"But I don't like that howl. In my country, in the North Woods, a dog's sometimes a very strange thing. I tell you a story, an' mebbe you all don't get so fresh to make fun because I'm 'fraid of that howl.

"It's a long time ago I was trampin' with a big feller named Black Jake. We make camp in a fine spot like this, an' for about one week we're livin' high—chicken an' eggs an' cream. Say, we work that country mighty good. But the best thing we find is one queer old duck that travels roun' trappin' an' buyin' skins, an' I'm just lucky enough one day to hear him tellin' what a big fool any one is to keep money in a bank when that bank's likely any time to go busted.

"He say he's got one big dog at his shack over on the hill what is better to keep money safe than all the banks that's ever been built.

"You bet we watch that shack like the lynx he watch those rabbit-holes, an' one day the old man packs up some skins an' takes 'em to town to ship by express. I been a pretty good man handlin' dogs till that time, an' it don't be long till I get that big black one in the little log out-shanty with a lock on the door to make it good an' fast; then we go through that house.

"That money's been hid pretty good, for it's most dark before we find it; an' we hear that old feller comin' back, callin' for his dog what's howling like the devil got it fast for sure.

"He's tryin' to break that lock, when we jump him, an', by jink! we have one big tussle. He's a very strong old cuss, an' we think that dog's goin' to tear a hole through them logs before we get him tied up. We drag him into the house an' block his mouth open with a piece of wood, an' I take one little thin knife what's been used to skin game an' cut his throat on the inside like a farmer kills the chickens. Then we hold his head over a tub so he won't make any muss.

"When we wipe his face it's much too white, so we get some soot an' make him look black in the mug for sure. Then we pull the tongue so it hangs out, an' take him into a woodshed on the back side of the house an' hang him to a rafter.

"He's one pretty bad sight in the light from that little lamp we got. I want to get out of there quick; but that Black Jake, he's not liking just how that tongue hangs, so he goes back an' pulls her out some more.

"I never tried to be anything but a very bad man—what's the use? But I got some feelin'—I couldn't do that. When I hurry down the hill he calls to me to wait till he goes inside an' fills an' lights his pipe. Somehow that feller don't seem human, an' he 'most gives me the creeps. The next day she works out, all right.

"Some chap comin' to sell skins finds that body hangin' there an' that dog whinin' locked fast in the log shanty. The coroner's jury, she sits on him good an' hard an' finds he's got tired of this wicked world an' gone hung himself.

"Black Jake goes in with the crowd to see the corpse. But me, I don't do it—what's the use? It's a good joke to see those people tear up everything tryin' to find that old miser's money. We muss around' some, just for the looks; but, you bet, we don't dig very deep.

"The next night we're thinkin' it's best to divide up that money-box an' get out of there, so we let the fire die down just enough so we can see. We put up a blanket to keep off the wind an' throw some cards down, so if any one's watchin' they think we have a little game.

"We get that box open an' see one fat wad in her when there comes a long howl like we just now hear, an' we see two red spots in the dark beyond the firelight.

"I jump up an' throw some twigs on that fire quick, when that big dog gives one jump an' gets Jake by the throat. It's all been done so fast I fall over backward, an' when I get up I see Black Jake standing with his throat torn open drivin' his knife into that devil of a dog; then they both fall over.

"My legs feel like they want to run; but that wad looks mighty fat, so I pull my gun an' make for it very careful. I just grab it an' jump back, when that dog gets up on his hind feet an' I let him have two shots in the head.

"He gives one queer kind of a growl,

'most like a laugh, an' keels over; an' me, I feel like there's a bite of red-hot teeth in my chest. You bet I don't waste any more time gettin' away from there, an' now—"

An unearthly screech, half laugh, half howl, interrupted him, and the men sprang to their feet and with startled cries and oaths threw firebrands and stones at a pair of blood-red eyes that stared out of the blackness

"Don't get batty now," drawled a tramp known as Doc, a whisky-soaked wreck from the medical profession. "I saw in the paper yesterday that a hyena had escaped from a show and was loose on the west mountain, and that's him. There's no other animal in the world makes such a beastly noise. Once you've heard it, you always know it, and I've heard plenty of them in Africa."

"Say, Doc," called a man from the other side of the fire, "come here an' look after Canada. When that bloomin' hyena of your'n screeched he just clutched at his breast an' keeled over like a sand-bag had struck him."

"He's a gonner," said Doc. "Must have had a weak heart, and that beast's just naturally scared him to death. Great Scott! Look there! I don't take any stock in his ghost-dog yarn, but see that! He's certainly been badly bitten in the breast at some time. Well, we've got to look sharp for ourselves, for if the town cops get next to this stiff they'll sure make a mess of it, and as likely as not jug some of us just to get their names in the papers. We'd better go through him to see if he's got a wad, and then bury him down by the swamp and keep quiet."

They worked rapidly as grave-diggers, changing shifts often as the black hole got deeper. The heads of the workers were just above the surface, when a sudden flash of white light made everybody jump for cover

"That's the headlight of the night-line!" cried Doc. "You fellows are sure getting a case of nerves. The cursed grave's filling up with water! Dump him in, quick—and all hands pile in the dirt!"

There was a splash and a frenzied hustling in of dirt and stones, and the body of the wild Canuck was fast in its last stopping-place. On the way back each man grabbed all the wood he could carry and threw it on the dying fire, around which they crowded closely, cursing the cold north wind.

"Say, Red," said Doc, "don't you remember the place we passed on the hill when we came in yesterday? The little tumble-down house with a skeleton of a lean-to wood shed on one side? I swear, I believe I saw a piece of rope dangling from an old rafter."

"That's right," cried Red, jumping up with an oath. "And there was a little log shack of a shanty back in the bushes."

"When this gets out on the road," said Doc, "I fancy that this place is going to lose its charm as a camping spot, and I move that we take the ties from that nearest shelter to build up this fire. It's certainly growing chilly."

There was another long, doleful howl over on the hill, and Red made for his pack:

"That's from over there where the old house is, all right. You fellows that want to can stay here an' burn up the whole cursed place an' yourselves with it; but the town's good enough for me, an' I'm gettin' there right now."

"Hand my bundle, too," said another. "I seen them teeth-marks on him a shinin' in the dark when we rolled him into the hole. I'll take to the station-house, an' if they give me ten days so much the better. I sure won't object"

"Well," said Doc, stroking his long whiskers. "If you chumps are all going, it's me, too. If that hyena should call again while I was here alone, I might get nervous. Everybody fill up a can—there's just about enough left—and here's good-by to the old stand. Canada has it to himself forever"

WHY IS A PASSENGER?

Legal Tangle of the Public's Rights on a Railroad.

Bewildering Diversity of Judicial Opinion Often Clouds the Issue and Conceals the Outcome of a Damage Suit Behind Distressing Uncertainty.

BY PEARSON MACINTOSH.

A CONSIDERATION of the rights of a passenger on a railroad. to the end that his rights may be clearly delineated, demands first an understanding of what a passenger really is from the legal point of view.

While it is not necessary to depend either on haphazard guesses or mere speculation, it is extremely difficult to discover a consistent authoritative definition of the term "passenger."

In one State a court will define the word with a shade of meaning that is contradicted by a court of a neighboring State. In a few essential things, however, the courts seem to agree.

Up to 1909 no fewer than fifty-three volumes of railroad cases had been collected, compiled, indexed, and digested by law reporters. These, of course, represent but a small fraction of railroad litigation, for they are only those cases which have been carried to a final decision.

Estimated roughly, these fifty-three volumes contain twenty thousand cases, covering abstruse variations on every conceivable issue that can arise between a railroad and its patrons. Some knowledge of these issues is necessary to an understanding of the prerogatives of a passenger.

The lay mind will encounter much that is bewildering, for, unfortunately, there is a diversity of contradictory opinions handed down by the different courts of the various States. It is deplorable that on some issues there seems to be no clearly defined law, and this renders it possible to so garble the issue that tiresome, protracted litigation often results.

A suit against a railroad, like any other suit, rests largely in the hands of counsel, and often resolves itself into nothing more than a battle of legal wits with the real issue thrust into the background.

Waiving the many uncertainties, an accepted legal definition of a passenger at present is: "A person whom a railway, in the performance of its duty as a common carrier, has contracted to carry from one place to another for a valuable consideration, or whom the railway, in the course of the performance of that contract, has received at its station or in its car or under its care."

This seems to be simple, lucid, and comprehensive; but it is surprising how many

exceptions can be made to so plain a proposition, or how much it has been necessary to amplify the obvious.

For example, the Supreme Court of Pennsylvania has laid down the dictum that "every person in a passenger-car is, *prima facie,* presumed to be there lawfully as a passenger, having paid, or being liable, when called upon to pay his fare; and the onus is upon the carrier to prove affirmatively that such person is a trespasser."

The Georgia Supreme Court has said that one who has a railroad ticket and is present to take a train at the ordinary point of departure is a passenger, although he has not yet entered the cars.

The Supreme Court of New York has gone still further, holding that neither the actual payment of a fare nor entry into the cars upon a railroad is necessary to create the relation of carrier and passenger. To be within the waiting-room of the company, awaiting a train, renders one a passenger as effectually as if he were within the body of the car.

Must Have Left Premises.

As a matter of fact and law, one need not either be in a train or a waiting-room to be a passenger. The courts in several States have often held that the relation of carrier and passenger does not cease until the journey expressly or impliedly contracted has been concluded. It does not terminate when the passenger has alighted from the train, but only after he has left the company's premises.

This point is illustrated in the case of a Kentucky woman who bought a ticket from Louisville to Shepherdsville.

On reaching her destination she was obliged to alight in a violent rain and hail storm. She could not pass to the waiting-room, because a long freight-train stood on the track between her train and the platform.

She was obliged to stand in the rain for ten minutes. When she finally reached the waiting-room she was drenched, and her clothing was soiled.

She sued for damages and received them. The Supreme Court ruled that she was still a passenger. Though she was no longer on the train, she was unable to leave the premises through the fault of the railroad company.

An Illinois stockman, taking a car of sheep from Nilwood to Chicago, left the caboose at Bloomington, a division-point, to obtain lunch. While walking through the yards in the darkness in company with some other stockmen he was struck by a passenger-train, and one of his legs was amputated. The Supreme Court of Illinois ruled that he was a passenger and entitled to damages as such.

Had Ticket, but Missed Train.

If a man should leave the car and clean the headlight of the locomotive at the request of the fireman and is injured while doing so, he does not lose his character of passenger. He is entitled to damages, as a certain railroad learned to its sorrow when the matter was carried to the highest court of Alabama.

On the other hand, a man who has actually purchased a ticket and is in the waiting-room of a railroad may not be a passenger. A citizen of Massachusetts who had bought his ticket, but had missed his train, lingered in the station, waiting for a street-car on which to return home.

Shortly afterward a locomotive crashed through the wall of the waiting-room, and he was injured. He sued for damages, but the courts decided that he was not a passenger because he had not left the company's premises "within a reasonable time," and therefore could not recover.

A still more aggravating disappointment befell an Iowa man who purchased a ticket and boarded a train to which his ticket did not give him admission. He was ejected by a railroad man, and sued for damages. When he admitted knowledge of the fact that his ticket did not entitle him to ride on the train he lost his case.

Conductor's Punch Created Rights.

In litigation of this sort there are some rather fine distinctions. An Ohio man who acted as did the Iowa man triumphed over the company, because the conductor punched his ticket, although the limited did not stop at the station indicated by his ticket.

The courts of various States have often ruled that railroads can order certain trains not to stop at certain stations, but it was the punching of the ticket that won the Ohioan's case. The court regarded it as evidence that the company had accepted him as a passenger in violation of its own rule.

While the courts have many times held that the actual payment of fare is not necessary to make a person on a train a passenger, they have also held that an offer to pay fare to a railroad employee not authorized to receive it is not an offer to the company, and hence does not entitled the person making the offer to the rights of a passenger.

To board a train in utter disregard of a rule requiring the purchase of a ticket places one on the same legal basis with one who refuses to pay. Railway patrons are bound to comply with all reasonable rules and orders of the company or its agents.

Even the possession of a ticket does not entitle one to transportation if it is stamped "Not good after date of sale" or if the limit has expired. A person who presents such a ticket, void on its face, and refuses to pay fare is a trespasser.

Ticket Is Receipt, Not Contract.

The proper procedure is to purchase another ticket and request the general passenger-agent to redeem the old one. He may do so, although he is not obliged to refund. The Supreme Court of Iowa has ruled that the holder of a railroad ticket who fails to use it within the time limit is not entitled to the return of his money.

It may be well to point out here that a ticket is not a hard and fast contract for transportation, but rather a voucher, token, or receipt. Here the passenger has an advantage, for the courts have ruled that verbal representations made by agents may be admitted as evidence of the terms of the contract

If you can induce the agent to promise more than the ticket covers, you can enforce the bargain or collect damages. The passenger is not entitled to a stop-over privilege, however, unless it is expressly granted. He is obliged to take the usual and most direct route to his destination.

Trespasser May Be Passenger.

The courts have further held that a person about to take passage on a railway-train must inform himself when, where, and how he can travel according to the regulations of the company. If he makes a mistake against which ordinary care in this respect would have protected him, he has no remedy against the company for any untoward consequences.

The courts have decided that a sleeping-car porter is not a passenger, because he is on the train under a contract "supported by a sufficient consideration."

Although a porter is not a passenger, a person stealing a ride on the front platform of a mail-car is almost one, or at least he has some of the rights of a passenger—at least, the Supreme Court of South Carolina has said so.

A youth who was stealing a ride was thrown from the platform by a lump of coal hurled by a railroad man while the train was in motion.

The court held that the company had no right to eject either a passenger or a trespasser without first stopping the train. The youth received fifteen hundred dollars for the injuries which he suffered.

The Supreme Court of Kentucky has also affirmed a verdict for damages sustained by a man who was thrown from a moving train by a brakeman. He had offered to pay his fare if the conductor were summoned.

The brakeman, it appears, had no right to throw the man off. On this point courts differ. Some have held that a brakeman may eject passengers from trains, while others maintain that only the conductor may do so.

Conductor Must Assist Them.

The cases which have been mentioned cover but a few of the many diverse opinions as to what constitutes a passenger. Next to be considered are the rights of a passenger. These are far too numerous for thorough treatment in limited space, but a few examples will give some idea of the attitude of the legal mind toward the subject.

The Supreme Court of Mississippi has decreed that a carrier or railroad is not required to assist passengers to board trains or to alight.

But the court also held that if a carrier stops its trains where passengers cannot enter or leave cars without difficulty, it is the duty of the conductor to assist them.

Regarding the time and place to detrain, the courts in different States have handed down a bewildering variety of decisions. In many cases it has been decided that the announcement of a station is not in itself a notice to alight

An Alabama man leaving a train fell from a trestle and was hurt. The Supreme

Court held that as it was night, the passenger was warranted in thinking the train was at the station, when, as a matter of fact it was at a water-tank seventy-five yards from the platform.

Leaving Moving Trains Is Negligence.

Other courts have also maintained that when the train comes to a full stop after a station has been announced the passenger, in the absence of notice to the contrary, is justified in attempting to alight, unless the surroundings and circumstances show to a reasonably careful man that the train had not reached the proper place at which a safe departure may be made.

The passenger has a right to leave the train at any regular stop, though it may not be his destination. The courts have so held in many cases. But if he is injured while doing so, the possibility of recovering damages is rather slight, for the courts would probably adjudge him guilty of contributory negligence.

It is always dangerous to alight from moving trains. The courts, in ruling in a great number of damage suits arising from such recklessness have been fairly uniform. The consensus of judicial opinion seems to be that the passenger is guilty of contributory negligence unless he leaves the moving train at the instigation of a servant of the railroad company. If he is so guilty he cannot recover damages.

Brakeman Not to Blame.

A man of seventy-six years boarded a train at Staunton, Virginia, to secure a seat for his daughter. He lingered in the car until the train was in motion.

The brakeman, realizing the old man's danger, tried to prevent him from jumping from the car, but the old man tore himself from the brakeman's hold, fell under the wheels and was killed. His estate sued for damages and the case was carried to the Supreme Court.

Although an attempt was made to show that the old man might have alighted in safety if the brakeman had not interfered, the case was decided in favor of the railroad, the court holding, first, that as the deceased on boarding the train did not notify the trainmen that he meant to alight before it started, they were justified in assuming that he was a passenger; and, second, that the brakeman did his duty in trying to prevent him from alighting.

A North Carolina man who boarded a train to find a seat for his daughter and her three children broke his leg in leaping from the car after it had started. He sued for damages and secured them.

In this case the man had taken the precaution to notify the trainmen that he was boarding the train only to find a seat for his daughter. He hurried from the car without delay, but the train started with such a violent jerk that he had to jump.

A similar case in Texas also resulted in a verdict for damages, which was sustained by the highest court. So many cases of this character have arisen that the following principles have been formulated in Hutchinson on "carriers," and they are frequently cited as sound law:

> A person who comes to a railroad station to assist a passenger in entering or leaving a train, though not a passenger, is not a trespasser, as he comes with at least the tacit consent of the carrier
>
> While so engaged, he does not stand in the relation to the carrier of a mere licensee, but is deemed to have been invited there by virtue of the relation existing between the carrier and the intending or arriving passenger.
>
> The carrier, therefore, owes to him the duty of exercising at least ordinary care to see that he is not injured by reason of defective station facilities or approaches thereto.
>
> So one who goes on a train to render necessary assistance to a passenger in conformity with a practise approved or acquiesced in by the carrier, has a right to render the necessary assistance and leave the train; and the carrier, in permitting him to enter with knowledge of his purpose, is presumed to agree that he may execute it and is bound to hold the train a reasonable time
>
> But the duty of the carrier in this regard is dependent upon knowledge of such person's purpose by those in charge of the train; for, without such knowledge, they may reasonably conclude that he enters to become a passenger

Buried in the railroad laws of the State of New York is a brief paragraph, the purport of which is that if a railroad refuses to check a passenger's baggage, it must pay the passenger ten dollars, and it is further enjoined from collecting fare from him.

Baggage Checked, or No Fare.

It is a curious relic, for the possibility of a railroad refusing to check baggage in

these days is altogether too remote to be considered.

Some railroad lawyers do not even know of the existence of this statute. One general counsel went so far as to declare positively that there was no such law in existence. He marveled greatly when it was shown him.

Idaho has identically the same law, except that the railroad must forfeit twenty dollars instead of ten to the passenger whose baggage it refuses to check.

A railroad in that State became involved with this law. A man with his wife and daughter, having purchased tickets boarded a train at Shelley at two o'clock in the morning. As there was no night agent at Shelley, the passengers could not check their baggage, which consisted of a trunk and a roll of bedding. It was customary for the train baggageman to check baggage under such circumstances.

In this case the trainmen became angry, put the trunk on board the train, but abandoned the bedding. They refused to give the man a check for the trunk.

He told the conductor that he had tickets, but refused to surrender them until he had received a check for the trunk. The conductor ordered him from the train.

Trunks Must Be on Same Train.

He swung on to the rear platform as it passed. A brakeman loosened his hold with a kick. He fell to the tracks and was severely hurt.

He sued for damages and obtained a verdict awarding him with a thousand dollars. The case was carried to a higher court. It sustained the baggage law in emphatic terms and affirmed the verdict.

A valuable right of the passenger is that which entitles him to have baggage carried on the train on which he travels. This right has been upheld by the highest courts.

A drummer took his sample trunk to the station in St. Paul an hour before train time. He checked it to Rochester and asked the baggageman, whom he knew, to be sure to put it aboard the evening train.

When the drummer boarded the train he found that his trunk had not arrived. It did not reach him until the afternoon of the following day.

He sued for damages and won. The verdict was affirmed by the Minnesota Supreme Court. In a similar instance the courts of South Carolina upheld a verdict for punitive damages awarded to a drummer whose sample trunk was delayed for six days.

Sleeping-car companies are also legally bound to guard the baggage of passengers. The courts have so held in a number of cases.

One case involving the theft of jewels valued at sixteen hundred dollars, from a sleeping-car in daylight, was carried to the Supreme Court of Georgia. It affirmed a verdict for the full value of the property.

Seized Hand-Bag Through Window.

In another case the same court ruled in favor of the sleeping-car company. In this instance the circumstances were unusual.

As the train was leaving a station, a thief standing on the truss-rod under the car reached in through an open window and seized a handbag.

The owner sued the company for the value of his baggage, but the court held that as this particular form of theft could not have been anticipated, the company was not responsible for the loss.

Some uncertainty seems to exist as to what constitutes baggage. It is established that jewelry for personal use is baggage, while jewelry for sale is not. Samples are not baggage, but if the road checks his samples as baggage the presumption is established.

The courts have held that the road knows what the trunks contain, and hence if they are lost they must be considered as baggage.

The passenger must not expect the railroad to care for his baggage indefinitely. If baggage is not claimed within a reasonable time it is the duty of the railroad to store it properly. Then the liability as a carrier ceases.

The courts seem unable to agree on what constitutes a reasonable time. If baggage arrives at night the next morning is generally considered a reasonable time.

In a number of instances courts have held that the morning of the second day after the passenger's arrival is "a reasonable time" in which he should claim his baggage.

In a New York case it was decided that a passenger arriving at his destination on a Sunday, during which secular work is

forbidden by law, was not excused from calling for his baggage until Monday.

Another valuable right of the passenger is protection against dogs.

A woman in a train in the State of Washington was bitten by a dog carried into the car by another woman. Instead of suing the owner of the dog the injured party sued the railroad.

The case was decided in favor of the bitten passenger. The court declared that the railroad company had no right to carry dogs in passenger cars.

The passenger has no protection from draughts. This contention has been settled by the highest court of Kentucky.

An elderly woman on her way from Memphis to Bowling Green was obliged because of a wreck to transfer from a sleeping-car to a day-coach during the early morning. The time being August, some of the windows in the coach were open, causing draughts which were alleged to have been a contributing cause of her death, which occurred soon after.

Her estate sued the railroad company for damages, but the court held that the railroad company was not liable to a passenger because of matters which are ordinary incidents of travel, such as exposure to draughts from windows opened by, or at the request of other passengers.

The highest court of Pennsylvania has declared that more than reasonable care and prudence are required of a carrier for the safety of passengers, and this position has been sustained by other courts.

A careless porter crushed the hand of a woman passenger between the wall of a sleeping-car and a table. The passenger sued the railroad for damages and obtained a verdict for two thousand dollars.

The verdict was affirmed by the highest court of Alabama, which declared that a railroad could not escape liability on the ground that the injury was inflicted in a car owned by another company, and that the porter exercised control over the sleeping-car with the assent of the railroad.

On the other hand, the passenger is bound to exercise reasonable care in protecting himself. A Massachusetts man, unable to find a seat on a train, remained standing.

Unfortunately he chose a place in the open door from which he was hurled to the ground by an unusual lurch of the car. He sued for damages, but the court decided against him on the ground that he was guilty of contributory negligence in standing in the doorway.

A very valuable right of a passenger is that which entitles him to a lower berth in a sleeping-car. In the maintenance of this right he has the support of the appellate division of the New York Supreme Court.

A passenger bought a ticket from San Antonio, Texas, to New York City, together with a lower berth. He occupied it from San Antonio to New Orleans. Here he had to change cars.

He found that his berth had been sold twice, and the other owner was in possession. There were no unoccupied lowers. He was obliged to ride for two and a half days in a coach.

He sued for damages and obtained a verdict for eight dollars, the price of the lower berth. This verdict the appellate division set aside, the learned judges declaring that the price of the berth was not adequate compensation for the discomfort and inconvenience which he had endured.

> Public policy also requires that a liberal rule of damages should be accorded the plaintiff in such a case. If damages are in such cases to be limited to the cost of the ticket, not only will the traveling public be seriously inconvenienced and annoyed, but it would lead to the resale of tickets for gratuities tendered by subsequent applicants, and result in the utmost confusion.
>
> The sleeping-car company has notice of every element of damages that the traveler is liable to encounter under such circumstances, for the indignity inflicted upon the passenger in the presence of other passengers by being refused the berth which he has purchased, and by being obliged to leave the sleeping-car, and for the inconvenience and annoyance which he suffered by being obliged to travel in a day-coach without sleep or washing facilities, and being obliged to change cars at early and late hours, he should be compensated

The man with a hobby is likely to have flat wheels in his success equipment. Don't put on the brakes for the sake of a diversion.

In the Bobcat Range.

BY W. BERT FOSTER.

The Stalking-Horse Express Gets Snowbound and Rafe Swayne Finds a Problem to Solve.

SYNOPSIS OF PREVIOUS CHAPTERS.

RAFE SWAYNE, son of Peter Swayne, president of the C and St M Railroad, and his chum, Hurricane Brown, rescue an old man and his nurse from a house which is set afire during a college celebration Being accused of having caused it, they leave town hurriedly on a freight train of his father's road. From a burning car Rafe saves an inventor who has been defrauded The engineer disappears from the cab, and Rafe runs the train into Pauling where, after a stormy interview with his father, he is placed in charge of the Bobcat Branch of the road, with Hurricane as his assistant On the way to the Kanaday mines Hurricane is smitten by Rose Bellot, secretary of Jane Marvel, owner of the rival Selden Branch The two are thrown together when Hurricane saves her dog The nurse saved from the fire is Marvel's niece whom Greg Morse, manager of the Selden line, is very anxious to marry She ignores Rafe when they meet At Kanaday they discover that Morse has been interviewing Nesterville secretary of the former manager of their branch They suspect Nesterville of trying to cause a strike Hurricane thoroughly alert, later follows Nesterville and discovers that he has an appointment with MacBride of the mining syndicate. While Hurricane is eavesdropping, Preston Potts, the inventor saved by Rafe, is ejected from the office He accuses the syndicate of defrauding him and announces that the superintendent of the rival line was also at the conference Hurricane suspects more trouble

CHAPTER XII.

Potts Takes a Hand.

THE C. C. came back from the Verde Flats the next day, supposedly on the regular passenger-train.

Brown and Rafe had held a conference regarding what Nesterville had really done, and where he had been, during the night—and the young superintendent of the Bobcat Branch had come to a decision.

He had wired his father in cipher to transfer Nesterville immediately to some other section of the C. and St. M. He would not agree to Hurricane's suggestion and take upon himself the responsibility of discharging the C. C.

"In the first place," said the weary Rafe, "if I did that I would be merely putting these men, whom you say are plotting against the branch, on their guard. Do you see?"

Hurricane grunted an unwilling agreement.

"If he is called by headquarters, or by the governor, to another job, he's likely to be so puffed up that he will suspect nothing. If the rascals know we're wise to them—as they will know if I give him the sack right here and now—they will be more circumspect."

"I suppose that is so," Brown admitted.

Nothing was said, therefore, to the squint-eyed chief clerk of the Bobcat Branch. As it chanced, everything was running pretty nearly right just then for Rafe. The boys were beginning to see that the president's son meant business, and some of the older hands intimated that the super would have trouble enough in the near future without the men themselves messing up things!

Began in the April Railroad Man's Magazine. Single copies, 10 cents.

The breath of winter was in the air. Snow had sifted down upon the Twin Peaks and the high valley between them. From the Kaniday station the upper reaches of the hills seemed a sheet of white—save where the evergreens had tossed their heads and shoulders free of the mantle.

Hurricane was still puttering with the Behemoth. They had the huge machine out on a siding that day and got up steam. When they got somewhere near the pressure in her boilers needed to work her properly, she blew out a cylinder-head!

"Can you beat that?" yelled the big fellow, almost mad enough to bite.

"We are wasting time, I fear," muttered Rafe, who had left his desk to observe the outcome of the trial

"But what will you do?" demanded his friend.

"I don't know."

"Then, let's stick to the Behemoth!" growled Hurricane. "If we can only make her go like the man intended who invented her, she ought to eat up all the snow that can fall on the Bobcat's right-of-way this winter!"

"You are far, far too enthusiastic, I expect, Steve."

"And you're losing your pluck," grunted his chum. "Hello! See who's here?"

"Why, I declare!" ejaculated Rafe, glimpsing the bizarre figure that had spurred Hurricane to his observation. "Isn't that the fellow—it's Mr. Preston Potts!"

The shabby little inventor sidled nearer. Rafe's hand went into his pocket with so suggestive a motion that even Potts started and blushed.

"No, no, Mr. Swayne!" he whispered hoarsely. "I know I look the part of a beggar; but Mr. Brown has fed me and helped me to lodgings. Really, if you will give me work I will get along. I am in your debt enough—"

"Pshaw!" returned Rafe good-naturedly, "don't let that bother you. A dollar or two, more or less—"

"No, sir. Mr. Brown has promised me employment."

Rafe smiled at his big friend quizzically.

"All right, all right!" he said turning away. "I can safely leave you to Steve's tender mercies"

But Hurricane was not looking very tender just then. He merely grunted at Potts, still staring at the huge snow-plow with scowling brow.

The men had drawn her fires and the foreman of the shops was preparing to take out the injured cylinder. Potts's blue eyes began to sparkle and he grew interested in the mechanism of the Behemoth.

When Brown had a chance to attend to the little man, he found him with smut on his face and hands, and hard at work with the other laborers getting into the vitals of the machinery. Potts instantly showed an understanding of mechanics that proved the truth of the claims he had made for himself.

"Give me a hand here, Mr. Brown," he whispered to big Steve. "You and Mr Swayne are anxious to get all there is to be got out of this plow?"

"If we don't make the Behemoth do the work she was cut out for, we might as well throw up the sponge here!" declared Hurricane

Potts looked puzzled, and the big fellow was tempted to open his mind a bit to the inventor. The latter soaked in the tale of trouble like a sponge. His fat face flushed and his eyes sparkled.

"It's for Mr. Swayne, is it?" he muttered. "He's got to 'make good' here on this mountain division?"

"Surest thing you know."

"The line must be kept free of snow? And this is the thing he must put main dependence in?" with a sweep of his hand toward the huge plow.

"You've got it, all right," admitted Brown shortly.

"Then, give me a chance, sir!" exclaimed the inventor eagerly. "Let me have a free hand. I have in the past—the happier past—put the powers of my mind to the invention of a monster similar to this. Perhaps I may be able to do something. At least, I will do no harm, Mr. Brown."

Despite his ridiculous appearance, he spoke with such dignity that Hurricane was forced to listen with respect. And, then, he believed that the tramp inventor felt the deepest gratitude toward Rafe Swayne.

"What do you want to do?" he asked doubtfully.

"Let me experiment a little," said Potts eagerly. "Give me a chance to try the thing thoroughly. I want some men to help me. This foreman is a blundering fellow. Give me a free hand."

"Well, hang me if I don't!" ejaculated Hurricane. "I'm dead sure you can't make

more of a mess of the Behemoth than those that have gone before you."

CHAPTER XIII.

The Stalking-Horse Express.

"WHAT do you know about that?" demanded Rafe the moment Hurricane Brown showed his head at the door of the office, which they divided between them.

He thrust a bit of flimsy into his assistant's hand. It was a wire from the Honorable Peter, and purported to refer to a consignment of wire nails for the Bobcat Branch; but on the bottom Rafe had transcribed the meaning of the cabalistic message:

> Forget it. Your C. C. is the best man you've got. Why transfer him?

"Say," drawled Hurricane, "I reckon the old gentleman has been keeping some in touch with the Bobcat's affairs. He ain't give you so free a hand as you thought."

"I don't understand it," growled Rafe, evidently considerably chafed by the president's message. "He told me to go ahead —"

"And bounce the chief clerk? Nix!" chuckled Hurricane.

"You've advised it right along," exclaimed Rafe.

"Yep. From the first. And if you'd done it then, mebbe you'd have got away with it. As I said, it would have shown your independence—"

"Bah! Independence! Evidently I'm about as independent as a hog on ice!" ejaculated the disgusted super.

"Well?"

"And if I'd done it when you said to, we'd been in a nice mess. We didn't know any more about the detail work of this branch than we did about running the Sahara as a summer resort."

"Wow! You're mad, Rafie!"

"And I've got reason for being hot," snapped his chum. "The Honorable Peter said I was to have free rein—oh, thunder! I'm going to see about this right now."

He slammed his desk shut and rose from his chair.

"What'll you do?" asked Hurricane curiously.

"I'm not going to waste my time wiring back and forth. Besides, Nesterville would be sure to get wise. I'm going to see father."

"Going clear to Collington?" asked Hurricane dubiously.

"Yep—if need be."

"And what'll happen here?"

"Why—I don't know of anything that can happen."

"Suppose we get a blizzard?"

"Well, I shall not be out of touch, I suppose, of the telegraph-wires," snarled the superintendent of the Bobcat Branch.

"But what I want to know," said Hurricane earnestly, "is who is to be boss in your absence? Say, in an emergency?"

"You are. I give you your head," shouted Rafe, and slammed out of the room on his way to the hotel to prepare for the trip.

The Twin Peaks were swathed in a fleecy cloud. Rafe Swayne knew that a storm was brewing when he faced the keen breeze on returning to the station.

The train for Verde was made up, and he slipped aboard without comment.

To give the devil his due, Rafe admitted that Phillip Nesterville had a good head for detail, and that his knowledge of the running affairs of the Bobcat Branch had been of service during these few weeks since Rafe and his chum had come into the range.

But the branch would have run on about the same, so far as details went, had the squint-eyed C. C. been transferred at once. Rafe was secretly sorry now that he had not taken Hurricane's advice and discharged Nesterville when he had found him so familiar with Greg Morse of the Keystone lines.

A plot had been developed. From Hurricane's report, Rafe was assured that Nesterville, with Morse and MacBride, of the Kaniday Mining Company, were conspiring the downfall of the Bobcat Branch—and his own failure.

So he was angered — particularly angered at the Honorable Peter. He believed that the president should have responded instantly to his request and taken Nesterville away

"And he'll transfer him when he hears what I've got to say, or I'll chuck the job," muttered Rafe, his vexation boiling in him.

His perturbed state of mind did not keep Rafe from closely observing through the car-window the recent work of the various section-gangs as the train sped down the grades and roared through the cuts in the foot hills.

He marked the new snow-shed at Thunder Gulch and the several other new barriers

he had ordered erected against the expected snowfall. As far as he could see, all had been done that was possible to guard against a congestion of traffic the entire length of the branch.

Yet he knew that one heavy storm might mix up everything.

"And then," thought Rafe, "both the syndicate and dad will be down on me like a thousand of bricks!"

He reached Verde Junction in no cheerful state of mind, and found awaiting him another madding wire from headquarters:

> You'd better stay where you are and attend to your knitting

That was from his father—there could be no doubt of it. Nevertheless, he caught a train bound west and walked in on the Honorable Peter just at dinner-time.

"Humph! so you think this is a good time to take a vacation, do you?" was the president's greeting. "And the weather bureau is flying signals for a big storm."

"That's the blow that's coming off here, dad," said Rafe sharply, and sat down without removing his overcoat.

"What in thunder is the matter with you, boy?" demanded his father curiously.

"I want a square deal, dad. I'm not getting it."

"What's the matter with you now?" growled the old man. "Aren't you having enough fun up there, playing at running a railroad?"

"Come again!" ejaculated his son, his eyes sparkling instantly. "I guess I don't quite catch your meaning."

His father snorted. "I know all about your junkets with that half-witted chum of yours. I might have known what you'd do — the two of you — when I let you go to Kaniday. Two fellows who knew no better than to shoot fireworks into a man's house the way you did at St. Mark aren't to be trusted alone, anyway. And here you want to get rid of your balance-wheel, eh?"

"Meaning Nesterville?" asked Rafe slowly and more quietly.

"Your C. C.—yes. If it wasn't for him—"

"Yes?"

"Hang it! I've got bad reports of you, young man!" cried the Honorable Peter.

"And emanating from this same chief clerk?" suggested Rafe coldly.

"I don't know about that."

"I do," whipped out his son. "I see now that I was too easy with the scoundrel. Steve was right. I should have bounced him."

"Bounced who?"

"The C. C."

"Not with my permission, boy," cried the president. "I don't want the Bobcat Branch to fall to pieces altogether."

"Then you should have found somebody else to go there and play goat for you," returned his son with more force than reverence. "Listen to me now. I want the floor."

For half an hour he had the floor. Peter Swayne was a just man and willing to listen to both sides. He had evidently heard garbled reports of the doings of his son and Brown at Kaniday.

"I want to know one thing, Rafe," he said sternly when his son had repeated all that was suspected of Nesterville, and all that was actually known.

"What is it?"

"Haven't you and Brown been fooling away your time on that bum snow-plow that Blaisdell lost faith in?"

"We are trying it out."

"Bah! It's a failure."

"That is to be proved," returned Rafe rather weakly. "But we have not neglected other matters. We don't need Nesterville another moment. I have every detail of the road in hand; and take it from me, either he goes or I throw up the job."

"A quitter, eh?" snarled the president.

"You will be the quitter. You haven't kept faith with me."

"By thunder, boy!" roared his father. "I won't allow you—or anybody else—to say that to me."

"Then give me the free hand you promised. Nesterville must go or I go."

"Pshaw! that's all moonshine. I don't believe Jake Marvel and the mining company would try to do us dirt. They don't have to. If the traffic can't be handled over our line, we lose—that's all."

"But some of the employees and officers of the mining company own stock in the Keystone lines; that I know to be a fact," said Rafe. "And I reckon that explains their anxiety to have the Selden Branch extended to Kaniday."

That wasn't a pleasant evening in the Swayne mansion; but when Rafe went to bed he had wrenched the promise from his father that he should have his way regarding the transfer of Nesterville

"Things can't be any worse than they are, I reckon," was the Honorable Peter's final conclusion.

The wire reported a fall of four inches of snow in the range the next morning, and the weather bureau still frantically signaled a blizzard and cold.

This "flurry" was only the foreguard of what was coming.

Rafe got reports from his branch at every stopping-place down to Verde Junction. The right-of-way was kept open, and every train was on time.

Besides, he knew that the proper telegram had been sent to C. C. from headquarters Phillip Nesterville was ordered to report at Collington the next day. The president would not hear of his discharge until the suspicions put forward by Rafe were fully sifted.

The young superintendent of the Bobcat Branch had some important matters to attend to at the Junction, and planned taking the evening train up the branch.

But he wished he hadn't. He'd had a section of the sleeper—a fancy varnished box for that jerk-water road—reserved for him on the Stalking Horse. When he entered the car there was a party in the next section that fairly set his teeth on edge.

It was Gregory Morse.

"By the piper!" thought Rafe. "Hasn't that fellow anything to do but ride up and down our road? How does his own branch get along when he's off so much? The C. and St. M. is a public carrier; but I swear I'd like to put the kibosh on that young man!"

He dodged out without occupying his own seat. He did not want Jake Marvel's protégé to spot him.

So he went forward and stepped aboard the locomotive. Fred Rysdale was waiting for the signal to go, and his fireman, Perrin Still, was just crawling in with his oil can.

"Evening, boss," said the eagle eye, grinning cheerfully. "Going up with us, I reckon?"

"Yes. How were things when you came down to-day?"

"Right. That little snowfall never feezed us, and the line's clear of it already."

"But there's more coming," said Still, pointing to the few flakes that spotted his jumper.

"Yes. I see it's beginning," said Rafe gloomily.

"I reckon we'll pull through all right. There's John Curran's light."

As the big mountain creeper pounded over the iron she was soon charging into a thick wall of falling flakes. The snow stuck to the cab windows; and when Rysdale flung back the slide so that he could see ahead, the gale shrieked through the cab with the wail of a lost spirit.

"It's going to be a nasty night, boss," said the engineer.

"I believe you," returned Rafe.

"It'll be thick as porridge before we reach Cranston," said the doleful Still.

The storm grew fiercer as they proceeded. The long-prophesied blizzard had descended upon the Bobcat Range.

The branch road, and his plans for keeping the right-of-way clear, were being tried to their fullest

As the Stalking Horse Express labored through the night, Rafe Swayne knew that other trains, up and down the road, were laboring as well.

CHAPTER XIV.

"The Happy Family."

RAFE SWAYNE had a chance to see exactly what the engineer and his mate were up against when the weather was inclement. Rafe had faced a pretty stiff blow himself before this, when hunting big game in the mountains; but even a bobcat would have kept under cover such a night as this!

The locomotive's headlight helped mighty little in revealing what lay ahead of the laboring train, although Rysdale kept his window open most of the time. They were fairly onto the switches before the targets could be seen.

The snow drove directly against them, for the most part. Despite the wriggling of the road, its general direction was in the teeth of the gale.

Now and then, when they came out of a cut, a broadside of snow would slam against the engine, work into the cab, and blind all three of the occupants.

"You'd better beat it back to the cars, boss," said Rysdale. "This ain't no fit place for a dog, let alone a human."

"And it's only the beginning!" added Still

"But you fellows have got to stand it," said the young superintendent. "I never

knew before what it meant to be in a cab on such a night."

"No need of your being here now, boss," said the old engineer kindly.

"I'm anxious, Fred."

"Naturally. But anxiety never made the fire burn," and he chuckled. "It's heaving diamonds that does it—eh, Perrin?"

Still flung open the fire-box door and scooped in a couple of huge shovelfuls. Rafe doubted if even Hurricane Brown, big and husky as he was, could sling the coal so easily. Still was not more than half of Hurricane's size; but he had the sleight.

"Do you think we'll pull through, Fred?"-the superintendent asked.

"Ask me an easier one," returned the engineer. "We're going to try, ain't we?"

"We must I hope we'll make Cranston—"

"That's pretty sure — unless something busts," said Rysdale shortly.

He opened the window again—and it was impossible to speak. Rafe cowered close to the boiler. When Still fed the furnace, the glare tinted the thick snow-cloud a roseate hue; but one could not see ten feet from the sides of the engine, and the headlight was a feeble glowworm.

When they passed Ogdenville, Rafe entered the smoker, where the conductor was sitting.

"Do you think we'll pull through if the storm continues?" asked the anxious superintendent

"Nobody can tell. We got to take our chances."

"But suppose we're snow-bound — with all these passengers aboard—somewhere between stations?"

"That's a chance we have to take," declared Curran again.

"But the passengers ought not to be made to take it," said Rafe. "I believe that they should be notified that the train may be stalled"

"And what good will that do save to create excitement, Mr. Swayne?" asked the conductor.

"Cranston is a good-sized town. There's not a bad hotel there; and boarding-houses, too. The passengers could get shelter and food"

"And all file claims against the Bobcat Branch!"

"What if they do? If we are cast away in the snow up yonder, the damage claims will be heavier."

"It's your business, sir," said the conductor shortly. "If you wish it, I will circulate the report that the Bobcat's crack ajack train isn't going through on time because of the first storm of the winter."

Rafe felt as if he had received a back-handed blow in the face. He felt something else, too.

In the smoker was a party of emigrants —men, women, and children going to work in the Kaniday mines. They were black-haired, squat, sturdy-looking men, dark women, and unkempt babies.

Rafe went back to the two rear coaches. In these two cars were seventy-five people. Traffic was light on this stormy night, and, without doubt, many would stop short of the end of the Bobcat Branch.

Returning, the young superintendent passed through the buffet-car, which was to be dropped from the train at Cranston. The waiters were clearing the tables, and the swashing of dishes and steam of washing came from the kitchenette.

The diners had gone back to the other cars. It was too late for Rafe to be served; but he halted, nevertheless, with a sudden idea in his mind. He called the steward in charge.

"How many sandwiches can you make up?" he asked.

The steward conferred with his assistant, and promised two hundred before the train reached Cranston.

"And the biggest can of coffee you can furnish," added Rafe, and went on into the sleeper, where the porter was already making up the berths as if no such thing as a blizzard was howling outside.

Rafe made for his own section. He was surprised to see that Gregory Morse was not alone in his seat.

A little man with a wizened face, rapping a cane on the floor of the car to emphasize his remarks, was sitting with the superintendent of the rival road. When Rafe came nearer he recognized old Jake Marvel

Young Swayne drew back to the rear of the coach. It flashed through his mind that the great mogul of the Keystone lines must be going to take a personal hand in the plot to down the Bobcat Branch. He was bound for a conference with the Kaniday mining people.

Jake Marvel was not riding in his own private car over the rails of this rival road.

"See who's up yonder?" queried John

Curran, noting Rafe's face as he came into the vestibule. "I forgot to tell you. They engaged two whole sections."

"Two sections?" demanded Rafe in surprise

"Yes Jake's secretary and the little girl they say is his niece are with the party. But the ladies have turned in— There's Rysdale's whistle. We must be getting into Cranston."

He hurried out. Rafe was excited and anxious. He was again near the young woman who had made so deep an impression on him at that unfortunate fire in St Mark

"And of course they are going through," muttered Rafe. "What a happy family this will be if the Stalking Horse gets stalled—everybody aboard, from emigrants to a railroad magnate and his party!"

Some few of the passengers left the train at Cranston. They were delayed some minutes in the yard while the buffet-car was kicked on a siding.

When Rysdale pulled out of Cranston, a plow had gone out ahead, but the snow had drifted back into the trench she made, and No. 40 had to buck several bad drifts before the switch targets of Cranston were out of sight.

Rafe could not keep still. He did not want to attract the attention of Marvel and Morse to his presence on the train. It might put them on their guard.

He returned through the coaches again. The babies in the emigrant party were crying, and some of the women were frightened. Beyond the windows all one could see was a swirling mass of snow. The train labored and stopped, labored and stopped—butting into the snow-banks and gaining headway very slowly.

It would have been better, perhaps, had No. 40 stalled near Cranston, but the plow ahead, with two engines pushing her, promised to make the way possible.

An hour later, however, Curran told Rafe that they had only come into sight of Devil's Gulch

"Put your head out and hear her roar," said the con. "That stream won't ever stop running! You can hear it above the howl of the gale!"

Rafe took his word for it, and did not go out into the snow—not then. But ten minutes later the train stopped dead. Minute after minute passed, and she did not move.

The young superintendent knew that what he had dreaded all the time had occurred. The train was snow-bound!

He was positive she could not back. He remembered that the nearest station was ten miles below the gulch. In the other direction was Moffett Station, fifteen miles away.

He pulled up the collar of his coat, grimly drew the brim of his hat over his eyes, and, jerking open the door, plunged into the swirling snow-cloud that howled about the train.

CHAPTER XV.

In the Grip of the Gale.

THAT first plunge almost took Rafe Swayne's breath away. A blizzard for fair was sweeping down from the north and had the whole Bobcat country in its grip.

There were misty lanterns bobbing about the head of the train. Rafe struggled through the drifts—some of them shoulder high—toward the goal of the locomotive.

He realized that he should have gone through the cars, and so saved himself this battle with the elements; but he had not desired to pass Jake Marvel and Morse in the sleeper.

He was on the sheltered side of the train, too. He knew where she stood. Thunder Gulch was within stone's throw of the head of the train.

He could hear, as Curran had advised him, the voice of the water that poured between the walls of the deep cut in the mountain. It made the shriek of the wind sound puny. But there was nothing puny in the strength of the gale. It buffeted Rafe about and almost took his breath.

He was between the cars and the side of the mountain—a sheer cliff here that rose a hundred feet into the air. The rails were laid upon the bench at its foot, while ten yards beyond the right-of-way the mountainside sloped away abruptly to the deep valley below.

There was no shed here. Indeed, they had come out of the long stretch of the covered way only a few minutes before. Beyond the bridge across Devil's Gulch the sheds began again.

No 40 had been caught between the two. The drifts of snow were half as high as the car-roofs, and the chance of getting the train on to the next covered stretch of track seemed

small to the young superintendent, even before he reached the engine.

Curran and the forward brakeman were there before him. The tarpaulin curtains Still had rigged only half sheltered the interior of the cab. The snow was knee-deep on the deck of the locomotive.

"Here's the boss," said Rysdale, peering down at Rafe as he struggled out of the drift.

The brakie gave him a hand up into the cab

"What do you think of this?" panted Rafe.

"You'd better have come through the for'ard cars, sir," said the conductor. "Wonder you weren't smothered."

"Looks like we're all due to be smothered," grunted Still.

"You keep the fire in her vitals, and we'll do fine—for a while," said the engineer cheerfully.

"We positively can't get ahead?" asked Rafe.

"There's a bank of snow before the pilot higher than our stack," declared Fred Rysdale. "The old mill can't buck that!"

"And the next shed just beyond the gulch!" sighed Rafe.

"It's gaining right along. We might as well stow ourselves away comfortably," grunted Curran.

"All very well for you to talk," snarled the pessimistic Still. "But my back's been froze while my face has roasted, all the way up the grade. This ain't any boudoir."

"We'll tack down the curtains and keep out the worst of it," said the engineer cheerfully.

"You'll have to keep the fires up," said Rafe anxiously. "Otherwise the folks back will freeze to death."

"Well—we took coal at Cranston. We're full up," said the eagle eye.

"That's a mercy," muttered Curran.

"But I believe," said the superintendent briskly, "that we should begin to economize at once. Why not crowd the people in the last coach into the smoker and so shut off one car?"

"You're expecting to stay right here a spell, are you, boss?" asked Rysdale.

"Do you see any warning of the gale shutting down?" demanded Rafe quickly.

"Don't see nothing."

"Then we might as well prepare for the worst. If we don't get it, well and good!"

"Mr. Swayne is right," said John Curran in his heavy way. "The fewer cars we have to heat the better, Fred."

"Well, I reckon Perrin and me'll have to shovel coal just the same," said the eagle eye philosophically.

"You bet! If there's work to do, it's always done at the head of the train," growled Still.

"And we're likely to work all night on empty stomachs," added Rysdale.

"No," said Rafe. "I'll send the porter forward with some coffee. I've a big can of it—and sandwiches."

"Crackey!" ejaculated the brakeman. "You was expecting this, then, Mr. Swayne? You've got a head on you."

The superintendent acknowledged the compliment. "I feared something might happen, and cleared out the buffet-car before we shunted it at Cranston. The stuff will come in handy."

"Bet your life!" exclaimed Still, more cheerfully.

"Well, let us go back," said Curran, swinging his lamp. "We can't do anything but freeze here."

"That's a nice lookout for us, too!" chuckled Rysdale.

"We'll spell you—later," promised the superintendent, as he followed Curran, the brakeman bringing up the rear.

Once in the baggage-car, Rafe asked:

"What chance would we have if we all got out and tried to shovel through that drift, Curran?"

"None at all. There's not enough of us—"

"Some of the passengers might help."

"But where's your shovels?" demanded the conductor. "Impossible, sir"

"I suppose so," said Rafe, with a sigh. "But every minute the snow is getting deeper."

"We must have help. Those outside can't do anything until the storm stops. That's the way it looks to me."

"And meanwhile?"

"We'll have to do the best we can," said the conductor

"I expect the passengers are all in a panic," said Rafe.

"I don't hear nothing," returned Curran. "We'll go through and see."

The superintendent forgot Marvel and his party just then, but when he and the conductor stepped into the sleeper they found the lights low, all the berths made up, and everybody quietly abed.

The first-class passengers, used to being cared for and sheltered, were probably peacefully sleeping. This stoppage was merely an incident of travel to them.

In the smoker it was different, however. The emigrants were greatly excited. A gabbling of tongues and cries of children greeted the superintendent and conductor as they entered the car.

"These huskies are pretty near crazy," said one brakeman in disgust. "They believe that the train is stalled, and that we'll all be smothered in the snow."

Rafe looked over the brawny, black-browed men. "I wish to thunder I had two dozen shovels!" he exclaimed. "We'd dig a passage to the bridge, at least, Curran."

"Pshaw, sir! You couldn't do it with two dozen elephants," declared the conductor sharply.

He was getting nervous, and little things began to rasp him. He went down the aisle and tried to hush the disturbance among the emigrants, but soon he grew exasperated and was shouting at them.

"The old man loses his head right easy like," commented the brakeman in Rafe's ear

The latter saw the point. He hustled Curran into the rear coach, and took hold of the emigrants himself. He made them get into more compact quarters so as to make room for the dozen or more passengers who soon came stringing in from the rear coach.

But Rafe had to acknowledge that he received more help in pacifying the huskies from one of the passengers than from anybody else. This was a thin little man who sat with a burly fellow in one of the forward seats.

Seeing how difficult it was for Rafe to make himself understood by the emigrants, the stranger came down the aisle, his seat-companion tagging him, and spoke to the huskies in their own tongue.

When Rafe turned to thank the little man, the latter said:

"That's all right, sir. I'm Dep'ty Sheriff Hilk. I'm going up to your place—me and my friend," he added significantly.

Then Rafe saw that the burly man was handcuffed to the little officer. The fellow hung his head so that the young superintendent could not see his face.

Rafe thought: "A happy family, indeed! A criminal and a representative of the law among us. And I'm responsible for the welfare of all these people!"

For he saw that old John Curran was not the man to handle an emergency like this. Faithful as the conductor was, he had already become rattled.

CHAPTER XVI.

Entombed.

THEY cut off steam from the rear coach and put out her lights. There was no danger of a rear collision on this night!

The shriek of the wind—even the dull roaring of Thunder Gulch—gradually died to a murmur. There was good reason.

When Rafe passed through the sleeper again and crossed to the mail-car, he found that the snow was already heaped over their heads—and over the roofs of the car.

The brakeman here had kept a tunnel open between the cars. He had just thrust the long handle of a broom up through the solidly packed mass which formed the roof of the tunnel

"Ye can't reach the outside with it, sir," he told the superintendent. "We're just buried alive here."

"Well, we're all right so far," said Rafe with cheerfulness.

"But this snow packs like ice We're going short of air yet."

The superintendent had not thought of this before. He had already noted, however, that it was uncomfortably close in the sleeper.

Perhaps the cold was not likely to be their greatest peril, after all. If the train remained entombed under a great depth of snow for long, they might all smother.

Not being a hibernating animal, man cannot live long without fresh air.

Rafe went through with the porter to the locomotive again. The porter carried the coffee and some sandwiches to the enginemen.

Still had to come with his shovel and dig a way for them between the front of the baggage-car and the cab. The tender was completely under snow, and the mass was taller than their heads as they stood on the running-board.

"We're going to be cut off from the train before morning," growled the fireman.

"I do not know whether it is a good plan or not to keep steam in the cars," said Rafe doubtfully, and he explained to Rysdale what he feared.

"If we don't keep fire in her, the tubes

will freeze, and she may blow out something when we fire up again," said the engineer. "And if we let the pipes to the cars die, maybe they'll freeze up, too.

"I'll not have a big fire; but to lose it would be the greatest catastrophe that could happen."

"I reckon you're right, Fred," said the superintendent. "If it gets too hot, I'll have all the doors opened through, and see if we can get a current of air from this end."

"Before morning, I tell you, the tender will be smothered," declared Perrin Still. "I'm glad you brought this stuff, Mr. Swayne. We're going to be cut off from the rest of you fellows."

"Don't mind him, sir," chuckled Rysdale. "He's a croaking raven."

"You'll see!" rejoined Still, with half a sandwich in his mouth

The negro had already gone back into the warm cars. And when Rafe returned he found that the cars were already uncomfortable!

He advised the men in each car to allow only a little steam to flow through the pipes. In the sleeper there were calls for the porter.

"I thought we were snowed up in a blizzard? I reckon we're right over the mouth of the bottomless pit instead, ain't we?" Rafe heard a fat man growl

The disturbance had awakened several of the occupants of the sleeper. As Rafe passed through, all snow-covered as he was, a face was suddenly thrust out of the curtains from an upper berth.

"What is the matter, sir?" asked a soft voice.

Rafe could not mistake that voice! Nor could he forget how calm and sure its owner had been when facing the direst peril at the fire in St. Mark.

"The car seems to be a trifle overheated, Miss Cope," said the superintendent. "It will be all right directly."

"Oh!" exclaimed Sally Cope, and she did not withdraw her face before Rafe caught the change in its expression.

It was plain that the niece of Jake Marvel had no use for Ralph Swayne! She asked for no further explanation

But when he tried to bring cool air into the cars, Rafe discovered that he had a hard job on his hands.

With the doors open, clear to the front of the train, the foul air of the smoker permeated each car.

He had already advised the ladies brought in from the rear coach to take refuge in the sleeper, where there was room for them. But the foul odors of the smoker made them ill

When the brakeman opened the doors of the vestibule, a solid wall of wet snow faced them. It only added a chill dampness to the atmosphere.

The fact that they were really entombed in the snow was now brought home to passengers and all. It was scarcely midnight, and there was a long stretch of the night before them.

Yet, daybreak would mean nothing to them—down here underneath the snow.

And that they were deep under the hard-packed mass there could be no doubt. The shriek of the gale and the roar of Thunder Gulch were distant murmurings only.

"This is fierce, Mr. Swayne," whispered Curran in his ear. "I've been caught before in a snow-storm, but never one that gathered so fast as this. It will take them a week to dig us out."

"Keep that to yourself, Curran," ordered the young superintendent sharply. "If you can't say anything to cheer us up, keep silent."

Rafe had taken hold of matters now, and the crew recognized that he was in charge. He had completely usurped the conductor's office.

But poor Curran was not the man for this emergency!

CHAPTER XVII.

Quelling a Mutiny.

THEY got the emigrant women and children quieted down after a while. The hot coffee and sandwiches had helped, for the little folk were hungry.

When Rafe went through the sleeper again, toward the head of the train, he saw Sally Cope coming from the dressing-room. She was fully clothed, and had evidently taken capable charge of her party.

From behind the curtains of the section occupied by the niece of the railroad magnate the frightened sobs of Rose Bellot showed that she was one of the hysterical kind.

"Old Hurricane is welcome to her," thought Rafe grimly. "Give me a girl who has some pluck."

But he wasn't likely to get the plucky

Miss Cope! She would not even look at him.

There being nothing else to do at the time, Rafe curled up in a corner of the baggage-car and took "forty winks." But he was up at three o'clock again, and started with a number of the crew to break through to the locomotive-cab and relieve the engineer and firemen.

Although the heat in the steam-pipes indicated that the fire in the engine was still alive, the young superintendent was becoming anxious for the safety of the enginemen

Besides, the cars were suffocatingly close. If possible, some means must be found to get to the outer air.

When they slid back the forward door of the baggage-car, however, a wall of solid snow met them. They attacked it with fire-axes and a shovel that chanced to be in the baggage-car.

"I'll make a note of the fact that trains on the Bobcat Branch should be equipped with snow-shovels, as well as buckets and axes, in every car," the superintendent told his helpers.

But the difficulty was, they had no way of disposing of the snow that they dug out of the drift which had buried the tender.

The end of the baggage-car was soon piled with it. The heat of the car turned the snow to steam, and the compartment was in a mess

When they threw the snow against the steam-pipes and it melted, the water ran over the car floor. By opening the side door the baggageman hoped to get rid of it; but he could only sweep out a portion of the mess. And he had difficulty in shutting the door again

Meanwhile, Rafe and his helpers cleared the running-board of the tender for some distance. Still and the eagle-eye heard them, and the fireman met them half way with his shovel.

They were getting rid of some of the accumulated snow at the cab by shoveling it into the tank. But they could not convert into water the whole huge bank which covered this end of the train.

How thick this drift was that lay above them nobody could imagine. The men under Rafe tunneled through it. Still tunneled likewise from the cab. In this dimly lit passage they met.

"Don't this beat anything ever ye saw, Mr. Swayne?" demanded the fireman.

"Or anything I ever heard of," admitted Rafe.

He offered the eagle-eye and his mate a chance to go back and find shelter in the baggage-car while two of the brakemen took their places; but Rysdale and Still wouldn't hear to it

"We're just as well fixed now as any of you. I reckon we've got better air to breathe—and we can keep warm," said the engineer. "We'll stick to the old girl—eh, Perrin?"

"I'm with ye, old man," agreed the fireman.

The coffee and sandwiches Rafe had thoughtfully brought from the buffet-car were gone now. He had fed everybody in the train—crew and all—but breakfast-time was approaching, and what would they do then?

Going back into the baggage-car, Rafe stopped to go through the express matter consigned to Kaniday in hope that there might be some canned food—or something of that nature—in the car. There wasn't a thing more eatable than a consignment of stove-castings.

"I reckon, if we're held up long, Mr. Swayne, we'll get used to a diet of snowballs," said the baggageman.

"The little children and the women are bothering me," returned Rafe gravely.

Here was the fellow whom old Peter Swayne had called a rattle-pated, thoughtless ne'er-do-well, burdened with the troubles of a trainful of helpless people. He wasn't thinking of himself. He had not even put the coffee to his lips, or tasted one of the sandwiches!

And when he went back into the sleeper he met more trouble. The first-class passengers were now thoroughly aroused; and they seemed to be thoroughly enraged, too!

The porter met Rafe at the vestibule door.

"Mas'r Swayne!" he stuttered, his eyes rolling. "Dat fat man say he carve ma liver out ef we don't make er start purt' soon out o' yere. An' dey all gittin' dat rambunctious dere ain't no libbin' wid 'em."

"I guess you'll have to live with them for a while, Smoke," advised the young superintendent, and pushed on into the car.

He turned to see Sally Cope at his elbow.

"My uncle wishes to speak with you, Mr. Swayne," she said coldly.

"All right," responded the young man, with a sigh.

He disliked the thought of having any

words with Jake Marvel; but he was determined to be master of the situation.

One of the sections occupied by the Marvel party had been made over again. Rose Bellot was in her berth yet; but the lame magnate and Gregory Morse were seated in this section.

"You are young Swayne, are you?" rasped out Jake Marvel, when Rafe appeared before him.

"My name is Swayne—yes," said the superintendent of the Bobcat Branch. "What can I do for you?"

"I reckon you can't do anything. It isn't in you to do anything useful, from all they tell me."

"If your intention in asking me to come here was merely to insult me, Mr. Marvel, I shall have to be excused. There is plenty for me to do just now; I cannot waste my time here," and Rafe turned.

"Come here, you impudent puppy!" yelped the old man. "How dare you speak to me that way?"

"Because, I reckon, I am not an employee of the Keystone lines," returned Rafe.

"I couldn't expect any different treatment from you, I suppose," growled the old man. "But if you are in charge of this branch of Pete Swayne's road, you can answer a passenger a few questions."

"If they are properly put—yes," admitted Rafe.

"Confound your impudence!" snarled Marvel again. "I'll make this road—and Pete Swayne—sweat for this treatment, now mark me."

"You mean that you will seek damages for being delayed?" asked Rafe mildly.

"Yes, sir! And I'll get them, too."

Rafe saw Curran lurking in the distance, and beckoned him down the aisle.

"Mr. Curran," he said, "on what tickets are Mr. Marvel and his party traveling over our road?"

"Why, sir—as usual. Pullman checks for the sections and Mr. Marvel's and Mr. Morse's passes."

"That's what I thought," said Rafe significantly. "You'll have a happy time collecting damages, Mr. Marvel."

"Confound you!" said the enraged old man. "It doesn't matter whether I sue your rotten road or not. It will go to pieces, anyway, in another twelve months."

Rafe looked at him with flashing eyes.

"And you are bound now, I am willing to wager, to meet the owners of the Kaniday mines, and so complete the bargain with them that your understrappers have made to knife the Bobcat Branch."

It was out before Rafe Swayne could nip it! The snarling face of old Marvel, the sneering expression of Morse's countenance, the accusing eyes of the girl, all served to make him lose control of himself.

Marvel jumped and flashed a keen glance at Morse, who paled and then flushed deeply. The girl looked puzzled.

Having gone so far, Rafe lashed out again—the fat was in the fire!

"I am well aware of your manipulation of the fellow who has been my C. C., and of the fact that he is a traitor. I believe you have done, through him, all you could do to hamper my work up here. But whether this snow puts us in bad or not, I might as well tell you that Nesterville has got through at Kaniday. You'll use him no more!"

Morse had recovered himself. Jake Marvel expected him to say something.

"With you snowed up down here, Mr. Swayne, I reckon Nesterville is just about boss of your branch at the present moment," he cackled.

"Not by a long shot!" exclaimed Rafe, turning on him. "I never left my office with that treacherous cur in control. Hurricane Brown is boss in my absence, and Nesterville will have a fat time trying to pull any devilment off with that old watch-dog in harness."

"Well, well! you are all talking a lot of senseless gabble," cried Jake Marvel. "I don't confess to understand a good deal you have said, Swayne. I am merely riding over your road like any other unfortunate passenger. And I wish to know what you—or your men here—are going to do in this emergency?"

"And all I can say to you is that, like the other passengers, you will find out what we are doing in due time. You'll take your chances with the rest of us."

"Confound you! We are snowed up here, aren't we?"

"Yes."

"How far from a human habitation?"

"I don't know," replied Rafe doggedly.

"And no supplies—no provisions?"

"You have all had a share of what there was on the train. There are little children in the other car. If we are kept here long they will suffer worse than you will. You'll get as good treatment as anybody else, Mr. Marvel—but no better."

"And this smothering heat!" cried the old man. "Can nothing be done to cool the cars?"

"Nothing will be done while you keep me here talking uselessly," said Rafe bruskly. "If all you've got to say is on a par with what you have said, you'd better keep it for the claim-agent. He's paid to listen to such stuff; I'm not."

He was reckless of consequences now. He turned on his heel, pushed almost rudely past the girl, and strode out of the rear door of the sleeper.

CHAPTER XVIII.

The Fight for Air.

THE brakeman had the vestibule doors open against the walls of snow. The air in the smoker was dead—dead and damp and fetid.

The occupants of the car were coughing almost continually. Some were smoking bad pipes and worse cigars.

Rafe knew that to open the doors right through the train and try to get a current of air the length of it again, would raise trouble among the passengers in the sleeper.

Somehow fresh air must be brought into the tunnel.

He could hear nothing through the mass of snow packed down so solidly upon the cars. The gale may have subsided; yet he could not even hear the roaring of the stream in the gulch. Therefore he believed that it was the thickness of the snow-bank that deadened all sound from without.

The question of food could be postponed. Nobody was yet suffering for sustenance, nor would starvation trouble the company much for some hours.

Without pure air, however, all the passengers would soon be ill.

It was Rafe Swayne's most important problem.

He turned to the brakeman and instructed him to go forward and get the shovels. Still would have to give up his scoop for a while.

Two of the brakemen were in a few minutes at work tunneling up through the snow between the smoker and the sleeping-car.

But this brought another question. What was to be done with the snow thus excavated?

This could not be piled in either the smoker or the sleeping-car. The platforms between the two were soon clogged with it.

Necessity is certainly the mother of invention. Every new move he made forced Rafe Swayne to think more to the purpose. Responsibility roweled him to new efforts.

He went forward to the mail-car and found some empty newspaper sacks. These he took despite the objections of the two clerks in charge.

"If this is breaking the post-office rules or the United States laws, I don't see what you can do about it, boys," said the young superintendent. "I am going to use the sacks."

He returned with them to the platform between the sleeper and the smoking-car. The two brakemen had dug out enough snow to swamp the place.

He called several of the sturdier huskies to their assistance. Deputy Sheriff Hilk again came to his aid, and explained to the miners what the superintendent wanted them to do.

Immediately these men took hold of the work. They were not like the first-class passengers, who merely made him more trouble and were themselves helpless.

There was soon a string of carriers passing through the smoking-car to the dark car at the rear. They shoveled the snow brought down from the roof into the bags, and shouldered these receptacles into the rear car.

There they dumped the snow at the far end, packing it in closely and tramping it into as small compass as possible.

The brakeman unearthed a couple of boards which he kept to lend the passengers on which to play cards, and these served to supplement the shovels.

Some of the men used their hands, the bags were filled, and the digging went on with a rush.

All the time, however, the air in the cars was becoming more foul. The children of the emigrants cried, and some were ill.

Rafe's own head throbbed unmercifully. How could the women in the other car stand it? He wondered if Miss Sally Cope was down ill, as well as Jake Marvel's secretary.

The trainmen and these passengers in the smoker relieved each other in the tedious work.

In spite of the fact that they worked like beavers, they progressed but slowly through the snow-bank.

(To be concluded.)

On the Editorial Carpet

We Tie Down the Whistle-Cord and Keep the Bell Ringing Because Something Unusual Happens.

PRAISE FROM THE HIGHEST.

MR. WILLIAM DEAN HOWELLS, the head of American literature and one of the editors of *Harper's Magazine*, was recently interviewed by the New York *Evening Post*, perhaps the most conservative daily in America. In the course of the interview, Mr. Howells said

"I have lately found pleasure in reading the RAILROAD MAN'S MAGAZINE. There were some capital short stories in it, very excellent pieces of work."

"Mr. Howells's words have the weight of great authority," says the New York *World*, editorially, in commenting on the above interview. And in this interview Mr. Howells spoke at some length on the literature of to-day, and the only modern publication he mentioned was the RAILROAD MAN'S MAGAZINE.

Such praise as Mr. Howells has bestowed on us cannot pass unnoticed. Coming from the very highest representative of our country's literature, it is, indeed, both gratifying and satisfying.

But there are reasons. For a long time we have felt *sure* of the stories that have appeared in this magazine, because the authors *knew* what they were writing about—because they were telling of experiences they had actually lived—without which no story can be literature.

An intimate knowledge of his subject is the *first* requisite of a fiction-writer, although clothing that knowledge in words is an art. The stories selected for this magazine are based on this principle.

That is why they make good.

Can any one deny that A. Herschin has not actually ridden the rods?

Can any one deny that Horace H. Herr has never been a railroad man?

Can any one deny that F. H. Richardson has never sat on the right side of a cab?

Can any one deny that Robert Fulkerson Hoffman has not known the actual grind of the drivers?

And there are others. Jim Fellom, whose marvelous story, "The Face in the Rock"—one of the most wonderfully dramatic stories ever written—appears in this issue, John C. Russell, Emmet F. Harte, Jared L. Fuller, Walton Burroughs, J. R. Stafford and H. M. Lome, all are men who *actually* know their subject matter and can clothe it in words that grip.

That's the secret of the success of the fiction in the RAILROAD MAN'S MAGAZINE.

MISHAPS ON THE RAIL.

A RAILWAY accident, however trivial, is lamentable; and no one grieves more over such an affair than the railroad man. But his grief is practical, which is more than can be said of the hysteria of the daily press.

While the newspapers are printing inaccurate and padded accounts of a wreck, the railroad man is using his intelligence in discovering its cause and planning the prevention of a repetition. In doing this, he is hampered by curiosity-seekers, members of public-service clubs and commerce commissions, all of whom are afflicted with a sense of their own importance. Men who never saw a day's service on a railroad, or in any technical occupation, rush into print with silly suggestions and becloud the issue in a deluge of twaddle.

A recent derailment, in which no one was killed and in which the road-bed suffered the most, was made the occasion for a variety of ridiculous statements. In every case, these were made by individuals who know absolutely nothing about railroads. One New York paper even advanced the time-worn flapdoodle that railroads be compelled by law to discontinue the running of fast trains!

Before proceeding along those lines, it might be well to pass a law forbidding newspapers to print articles on railway matters unless signed by some technical man. If the newspapers want to take part in discussions of this kind, they should first learn something about railroads from a mechanical standpoint.

Another thing needed is the curtailment of the authority of the Interstate Commerce Commission and the various State public-service commissions. The only legitimate function of such commissions is the supervision of rates. The railroads do not need any advice on matters pertaining to practical railroading — certainly not from politicians.

The whole trouble is that what was originally "regulation" has degenerated into sheer interference, annoyance, and officiousness. The rail-

ways do not want wrecks to occur, and are willing to do anything within reason to prevent them. A great deal of money and serious effort have been expended to make travel safe, but if the unforeseen happens, there is no reason why ignorant persons should rant and rave. Mere vituperation accomplishes nothing, and only gives an erroneous impression to uninformed sections of the public Railroad men owe it to themselves to refute the false accusations that are hurled at them by irresponsible agitators.

A few noisy persons entertain the notion that politicians and newspapers know more about railroading than the railroads, and are willing to accept the opinion of almost any one—except a railroad man or technical expert.

No sane man would send his watch to a plumber for repairs. Why, then, when in search of information about railroads, should he consult one who is ignorant of railroading? A practical knowledge of this industry can only be acquired by years of experience and study.

No man can be a politician and railway expert at the same time; the two occupations are too far apart and dissimilar. The day of the "jack-of-all-trades, master-of none" passed away long ago

The desire to provide the public with information relating to railways is commendable; but there is only one fair and honest way of doing it A glance through any first-class technical or railway magazine will quickly prove why the haphazard article on railroading is about as silly as a crown-sheet made of lead.

With reference to accidents: the roads involved give out concise, but accurate accounts that do not require elaboration The publication of accident causes based on hearsay is all too common. It merely adds to the already unquenchable fires of sensationalism

A search through the files of even some of the most conservative newspapers discloses the reports of a number of trifling mishaps which have been exaggerated or "faked-up" to give the impression of frightful disasters

If a man is traduced in the daily press, he can obtain redress in the courts; but the railways are so busy attending to their legitimate work that they have no time to refute lies. If a newspaper thinks that "knocking" the railroads is popular, it will distort facts and falsify reports to serve this purpose. It will publish "interviews" that never were spoken, and "quote" men whose railroad knowledge is limited to the fact that a wheel is round. It is time that newspapers and politicians learned something.

A CHANCE FOR YOUNG MEN.

WITH the completion of a double-track system of railroad in its school of telegraphy at Bedford, Pennsylvania, the Pennsylvania Railroad is to send out notices calling attention to the opportunities offered young men who desire to enter the railroad field.

Located at the headquarters of the Bedford division, the telegraph school has the personal supervision of practical railroad men, officers of the Pennsylvania Railroad. J C Johnson, superintendent of telegraph of the lines east of Pittsburgh, is in charge of its operation, with Thomas Saddington as resident manager.

The Bedford school of telegraphy has the same equipment as a station on a double-track road. In addition to the miniature railroad, engines, and cars, a regular system of manual block-signals, with cross-overs and sidings, has been installed. Despatching trains by telegraph and telephone is taught in the school, while the students are also given a full course in agent's work, such as filing of tariffs, keeping reports, filling out standard blanks, and keeping the necessary records.

The text-books used consist of the "Book of Block-Signal Rules," the "Book of Rules for the Government of the Transportation Department," copies of all standard forms of Pennsylvania Railroad blanks, and other standard literature such as is supplied to agents and telegraph-operators. The school is also in possession of an extensive library on technical works pertaining to telegraph, telephone, and agent's work

Since the establishment of the school of telegraphy, in 1907, there have been enrolled 364 students, 214 of whom have been graduated and are now employed as telegraphers. The time required to complete the course is from six to eight months, and immediately on its completion, the graduates are given salaried positions with the Pennsylvania Railroad in direct line of promotion

ELECTRIC-LIGHTED SIGNALS.

EDITOR, RAILROAD MAN'S MAGAZINE

IN reply to H. E H., Racine, Wisconsin, in the April RAILROAD MAN'S MAGAZINE, relative to electric lights instead of oil in semaphore lamps, I wish to state that the B. and O. is at present using electric-lighted automatic signals between Goehring and New Castle Junction, Pennsylvania; Pittsburgh and Connellsville, Pennsylvania, and Baltimore and Brunswick, Maryland, with success, each signal-light being a separate unit in respect to itself. The light is taken from the six cells (12 v) storage-battery, which operates the signals, a two-candle power, 4 and 6 watt, 14-volt lamps are used. They illuminate only when trains are approaching, and no light is shown when no trains are on the preliminary circuit Should a bulb burn out for some cause, it does not affect others on the system.—H. C. C., Hazeldell, Pennsylvania.

EDITOR, RAILROAD MAN'S MAGAZINE:

THE Norfolk and Western, between Chillicothe and Columbus, Ohio, use a type of a. c. auto-block signal, in which all semaphores are electric-lighted, including switch-indicators and interlocking plants. The distance is fifty miles, double-tracked, with one power-house in the center of this section. Between 2,200 and 2,300 volts is the transmission-pressure

with step-down transformers at every signal with a secondary voltage of a 110. The lamps on this system, I think, are all rated at 4 c. p. If one gets in trouble or burned out, that signal or semaphore, is the only one affected—no other signal will be by this system. Where they use the battery system as a source of power, they would have to run their lamps in series, and if one lamp burned out or a line became disabled, at least five lamps would be put out of commission. In this case, the oil-lamp would be the cheapest and safest light.—A CONSTANT READER, Circleville, Ohio.

STRAIGHT-FLUSH CARS.

EDITOR, RAILROAD MAN'S MAGAZINE

I INSPECTED and shipped from the Haskell and Barker Car Company works, Michigan City, Indiana, on November 10, 1911, C., B. and Q. box car No. 111111. This lacks but one of being a combination hard to beat. car No 111111, shipped 11-10-11.—E. E. H., Michigan City, Indiana.

EDITOR, RAILROAD MAN'S MAGAZINE

I HAVE been watching for this car, and at length it has reached the R. and C. division of the Philadelphia and Reading.

St. L. and S. F. car No. 123456 arrived at Lancaster, Pennsylvania, February 28, on train No. 43, E. C. Johnson, conductor, loaded with mixed freight; and forwarded February 29 on train No. 50, E. F. Ford, conductor, loaded with mixed freight for Chicago, via New Berry Junction, Pennsylvania, and Merchants Despatch.—O. K. B., Lancaster, Pennsylvania.

LONG DISTANCE RUNS.

EDITOR, RAILROAD MAN'S MAGAZINE

I NOTICE from time to time that some gazabo is telling you how long a run he has made on a passenger-train without change of engines or engine-crews. Please tell them all "to go way back and sit down," as WE (the S. P., Tucson division) have them all skinned by several blocks, so please send us the blue ribbon after perusing the following.

The Sunset Limited, also known as the "Train de Luxe," "Millionaires' Special," "Honeymoon Flier," and other names too numerous to mention, runs from El Paso, Texas, to Tucson, Arizona, without change of engines, engine-crews, or train-crews, a distance of 312 miles, making only five stops for water. These are the only stops made on the entire run. The train is Nos. 1001 and 1002 on the time-card. If anybody can beat this, let me hear from him.—SOUTHERN PACIFIC, El Paso, Texas.

EDITOR, RAILROAD MAN'S MAGAZINE

ON the Indianapolis and Cincinnati Traction Company's lines, running from Indianapolis to Connersville, Indiana, a train makes two round trips a day, and makes the run from the city limits of Indianapolis to Connersville, a distance of 54 miles, in 69 minutes. This is a remarkable run for a traction-car to make, when it must be taken into consideration that they pass through Rushville, Indiana, where they have a mile of track on city streets, three street-corner turns, and two railroads to cross, where they must "run" the crossing. This is a speed of 46.9 miles per hour, including this hindrance in Rushville, and three-fourths of a mile on city tracks in Connersville.

Another run is train 34 on the Vandalia lines, running from Effingham, Illinois, to Indianapolis, a distance of 141 miles, in 4 hours, making an average of 35.2 miles per hour. This run would not be remarkable if it were not for the fact that this is a local mail-train, making 33 stops, and stopping five minutes in Terre Haute, where they change engines. You can see that in an hour's running they cover 35 miles and stop eight times. If any of our readers can sight me to a run that beats this, I will thank them.—R. F., Spiceland, Indiana.

EDITOR, RAILROAD MAN'S MAGAZINE

WITH reference to long runs without change of engines, I would like to mention one which, I think, is a little different from those already reported. It is on the Missouri Pacific, out of Sedalia, Missouri, and is as follows:

	Miles
From Sedalia to Tipton	25
From Tipton to Boonville	26
From Boonville to Marshall	34
From Marshall to Boonville	34
From Boonville to Versailles	44
From Versailles to Boonville	44
From Boonville to Tipton	26
From Tipton to Sedalia	25
Total	258

This train leaves Sedalia at 5.20 A.M., and, returning, arrives Sedalia at 6 P.M. Its longest stop is made at Boonville, 1 hour, 5 minutes. The train is a local, consisting of two coaches. The run is made with a single engine and crew, the engine being one of the 8700 class, about the smallest passenger locomotive in the road's service. The train is also commonly known among Mop employees as the "Merry-go-round," on account of the more or less circuitous route it takes. During the entire run the train never gets farther than forty miles from Sedalia.—C. R. A., Columbus, Indiana.

EDITOR, RAILROAD MAN'S MAGAZINE.

IF I am not mistaken, not one of your correspondents has mentioned a long freight run. On the Calgary-Medicine Hat division of the Canadian Pacific, the run of 180 miles is made by both freight and passenger-trains without change of engines or crews. One engine, No. 59, which was about ready for the back shops, burned 23 tons of coal on this division going one way. Can any one beat this? I ought to say, however, that a fireman who was deadheading, helped the regular man out.—C. E. T., Roy, Washington.

FROM A HIGH-BROW.

THIS evening I picked up the February number, and turning to Robert Fulkerson Hoffman's "The Red Veto," I read it once, then turned back and read it again. I buy the magazine every

month and read it mostly for the special articles. I often attempt to read the stories, but seldom finish one, as I consider them, as a rule, too light to waste time on.

I think you will agree with me, that to a man whose favorite authors are Kipling, Emerson, Browning, and Bryant, your stories will not make much of an appeal. However, I thank you for "The Red Veto," and although I may be no critic, I consider it a masterpiece of fiction.—Box Car Slim, Westphalia, Kansas.

ANOTHER OLD TICKET.

Editor, Railroad Man's Magazine.

I NOTICE in the Railroad Man's Magazine for February, that Mr. C. Waddell, Lodi, California, has a railroad ticket dated 1869. If you want to take a trip up the Hudson River I can go Mr. Waddell one better. I have a ticket that reads: "CITY OF HUDSON. Good until used. Castleton to Albany and return. W. P. A. Stranahan, Capitan.—1868."—E. O. Rhodes, Redwood City, California.

CHALLENGED RECORDS.

Editor, Railroad Man's Magazine.

AFTER reading your communication in the Editorial Carpet for March, entitled "Challenged Records," I beg to further challenge the remarks of L. A., Joliet, Illinois, with the following:

The quoted records as to heavy trains are good records, but they are lacking in gradement and road characteristics. The large freight-engines on the Pittsburgh and Lake Erie Railway (New York Central lines), haul trains of 4,500 tons. Trains are made up either of 75 or 80 hoppers and gondolas mixed. The result of such a make-up can be easily figured. I have seen trains of 75 hoppers running between Connellsville, Pennsylvania, and Struthers, Ohio, and will give you some startling, but, nevertheless, truthful figures. Steel hoppers weight from 19 to 24 tons, empty; capacity 100,000 pounds. Loaded with coal, the combined weight of car and contents average 77 tons. Seventy-five of such cars, making 6,075 tons, are hauled daily by simple engines between the points mentioned, 130 miles, and only one engine is used. The distance is generally covered in from 13 to 15 hours. A one-mile string is a train made up of 125 to 150 cars. This particular piece of track is on a water grade and very crooked. There are only two places in 130 miles where the engineer can see the caboose.

Another record is that of engine 2400, "Old Maude," the first Mallet ever built, now being used as a helper on the Baltimore and Ohio Railroad between Rockwood and Sand Patch, Pennsylvania. "Old Maude" in a test hauled 125 empty box cars, 2,125 tons, from Cumberland, Maryland, to Hyndman, Pennsylvania, a distance of 14 miles, on a four-fifth per cent grade, in 1 hour and 15 minutes.

Another record is that of compound engine 1655 on the Santa Fe, between Albuquerque, New Mexico, and Bernalillo, New Mexico. It hauled 6,000 tons alone for a distance of 18 miles.

These records are all bona fide. N. G. C. Albuquerque, New Mexico.

WHAT SHALL WE DO, BOYS?

Editor, Railroad Man's Magazine.

I HAVE been a reader of the Railroad Man's Magazine for so long that I cannot remember when I bought the first one; but I want to say a few words to warn you of a coming disaster.

Mrs. Moore says that she is going to bring suit against the Railroad Man's Magazine, unless you either stop its publication or arrange it so that I cannot get it, for the minute it comes my family cannot get a word out of me until it is finished.

Please let me have your answer in the next issue of the Railroad Man's Magazine, as I am very much worried by the action Mrs. Moore has taken.

Thanking you for the pleasure I have had in the past.—C. Herbert Moore, Chicago, Illinois.

ANSWERS TO CERTAIN SIGNALS.

W., PASADENA, California.—Thanks for the beautiful Easter card from your sunny State.

J. O. H., Sandusky, Ohio.—The history of all the railroad orders are scheduled to appear in "Ties That Bind." None will be overlooked.

R. C. J., Cordelia, California.—You're mistaken, old man. The old California-Pacific Railroad ran through your town from Suisun to Vallejo, California, before it became part of the S. P.

H. L. F., Augusta, Maine.—You say you'd like to pan us, but haven't the nerve. Well, bo, we've got the nerve to read it if you'll do the panning.

Horace, Factoryville, Pennsylvania.—Be a dutiful son and let your mother read the Railroad Man's Magazine first.

Pro Bono Publico, St. Louis.—Your suggestion that all conductors and brakemen be made to call out the names of stations in French and German as well as English is too foolish. Where can you find a Parisian accent or a Teutonic inflection for Kalamazoo, Oshkosh, Nechantiz, Ojuelos, Paducah, Mattawamkeag, Skowhegan, or any other names that have made our station-callers the most remarkable English linguists in the world.

AMONG THE MISSING.

INFORMATION is wanted regarding the whereabouts of W. S. Cantrell. When last heard from, he was a clerk in the local freight-office of the Rock Island at Kansas City, Missouri. When he left there he spoke of going to Cincinnati. Since then he has not been heard

from. Address his father, J. E. CANTRELL, 619 Kohler Street, Los Angeles, California.

Information is wanted about C. E. McConnell. When last heard from he was telegraph-operator in Pima, Arizona. He is about 5 feet 5 inches in height, has brown hair, blue eyes, and is thirty-three years of age. A part of three fingers of his left hand are missing. "I want to let him know that our father died lately," writes his brother, EDGAR MCCONNELL, 132½ Maple Avenue, Ottumwa, Iowa.

OLD RAILROAD POEMS.

SEVERAL of our readers have asked for the old song which begins as follows:

How can we get back on Division D.,
Without the headlight glass.

There is still another old song that is wanted. It was written by an engineer about twenty-five years ago. Part of it runs as follows:

There was a young angel from heaven,
Who pulled the plug on 237.

TWENTY YEARS AGO.

I'VE wandered to the office, Tom, I've sat down at the key,
Upon the same old railroad that "fired" both you and me;
But none were left to greet me, Tom, and few were left to know,
Who pounded brass upon the pike some twenty years ago.

The jobs were just as few, Tom, the students many more
Were plugging the same old key, where we plugged years before,
The agent old sleeps in the earth, which, when the wires were low,
Afforded us a circuit there, some twenty years ago.

The dear old place is altered now, they have a brand-new table,
Its predecessor "hayed" us up whenever we were able;
But the same old sounders on that desk with voices growing low,
Was music to our ears, dear Tom, some twenty years ago.

The boys were playing some old game, you bet it wasn't free,
I have forgot the name just now—you've played the same with me
On that same spot; 'twas played with dice, by throwing so and so;
The loser never paid his board there, twenty years ago.

The cedar poles are larger now, the wires they carry more,
Much better than they used to be when we took down their "roar,"
The station park is ruined now, where once we played the beau
And flirted there with pretty girls, just twenty years ago.

Within that park upon a tree you know I cut your name,
Your sweetheart's just beneath it, Tom, how well I did the same;
But a heartless wretch, he stole her love, for Tom you were quite slow,
He married her for cash, they say, some twenty years ago.

My eyes are growing dim, dear Tom, my steps are not so free,
It's few old-timers now I know, excepting you and me;
And when our time shall come, Tom, and we are called to go,
I hope they'll lay us where we "hammed," some twenty years ago.

WHEN JIM COMES HOME.

BY LYDIA M. DUNHAM O'NEIL.

"WHEN Jim comes home,
After the long, long hours at last have sped,
I'll ask forgiveness for the words I said;
For failing to respond to his 'good-by,'
And bright once more will be this clouded sky,
When Jim comes home.

"When Jim comes home,
I'll wait and watch for him, and I will meet
Him at the door, with loving words so sweet.
I know that he will pardon me, dear lad!
For having wounded him and made him sad,
When Jim comes home."

When Jim came home,
His comrades carried him across the hill;
No more would he respond to whistle shrill
He had been summoned for the Main Line Run,
And all his dreary work on earth was done,
When Jim came home.

When Jim came home,
She wept and prayed, but all to no avail,
The past was past, and she could not unveil
The future; she could only bow her head.
Jim could not pardon now, for he was dead—
When Jim came home.

When Jim comes home!
God's caller comes, we know not how nor when,
And never brings our loved ones back again,
And words we fain would utter are too late.
Ah, sweethearts, wives, and sisters, do not wait
Till Jim comes home!

LOVE MAKING.

BY ROBERT J. BURDETTE.

IT'S noon when Thirty-five is due,
An' she comes on time, like a flash of light,
An' you hear her whistle, "toot-tee-too!"
Long 'fore the pilot swings in sight
Bill Maddon's drivin' her in to-day,
An' he's callin' his sweetheart, far away—
Gertrude Hurd—lives down by the mill—
You might see her blushin', she knows it's Bill
"Tude Toot-ee! Tu-die! Tu!"

Six-five A.M., there's a local comes—
  Makes up at Bristol, runnin' east;
An' the way her whistle sings an' hums
  Is a livin' caution to man an' beast
    Every one knows who Jack White calls—
    Little Lou Woodbury, down by the Falls,
    Summer or winter, always the same,
    She hears her lover callin' her name—
      Lou-ie! Lou-ie! Lou-iee!"

At six-fifty-eight you can hear Twenty-one
  Go thunderin' west, and of all the screams
That ever startled the rising sun,
  Jehu Davis sends into your dreams.
    But I don't mind it; it makes me grin—
    For just down here where the creek lets in,
    His wife, Jerusha, can bear him call,
    Loud as a throat of brass can bawl—
      "Jeee-rooo-shee! Jehoo!"

But at one-fifty-one old Sixty-four—
  Boston Express runs east, clear through—
Drowns her rattle and rumble and roar
  With the softest whistle that ever blew,
    An' away on the furthest edge of the town,
    Sweet Sue Winthrop's eyes of brown
    Shine like the starlight, bright an' clear,
    When she hears the whistle of Abel Gear—
      "You-ou-ou, Su-u-u-u-e!"

An' long at midnight a freight comes in,
  Leaves Berlin some time—I don't know when—
But it rumbles along with a fearful din,
  Till it reaches the Y switch there, and then
    The clearest notes of the softest bell
    That out of a brazen goblet fell,
    Wake Nellie Minton out of her dreams—
    To her like a wedding-bell it seems—
      "Nell, Nell, Nell! Nell, Nell, Nell!"

An' somewhere late in the afternoon,
  You'll see Thirty-seven go streakin' west;
It's local from Hartford; some old tune
  Now set for the girl that loves him best.
    Tom Wilson rides on the right-hand side
    Givin' her steam at every stride
    An' he touches the whistle, low an' clear,
    For Lulu Gray, on the hill to hear—
      "Lu-lu! Loo-Loo!"

So it goes on all day an' all night,
  Till the old folks have voted the thing a bore;
Old maids and bachelors say it ain't right
  For folks to do courtin' with such a roar
    But the engineers their kisses will blow
    From a whistle-valve, to the girls they know,
    An' the stokers the name of their sweethearts tell
    With the Belle! Nell! Dell! of the swaying bell

THE NEW RAILROAD MAN'S MAGAZINE.

HERE'S a flimsy worth reading. Beginning with the July number we will give you a better magazine than you ever had before, and that's saying something for this magazine, we think. Your old friend will be printed on super-paper, and, for the first time since it has been whizzing along the rails to success, we will be able to present photographs—photographs that cannot be excelled in their interest by any others in the world—photographs of the latest railroad equipment and the men who are doing big things in the railroad game, photographs of the heroic work of railroad-builders — all of which will give an added and irresistible interest to this magazine.

It is going to cost money to do this. It means a greater editorial and mechanical expense. To meet it the price of the magazine will be raised to fifteen cents a copy but it will be fifteen cents' worth that you cannot equal in the world a great new publication with a new impetus that will carry the top notch of quality.

You must get in on this and get your rake-off. You have liked our magazine in the past; hundreds of thousands of you have; you'll like it infinitely more in the future.

We've always been with you, boys. You're with us, we know. Get your ticket early and write and tell us what you think of the change.

The story of the Chicago stock-yards will be told in July. A graphic and gripping narrative it is of one of the most wonderful phases of American railroading. In one night Chicago has received over 700 car-loads of live stock! Some days a thousand cars arrive —and all have to be unloaded and sent away in the shortest possible time. The author, Lloyd Kenyon Jones, says: "Handling trains at the Union Stock Yards is one of the real romances of the world. It is not calculated to feed the imagination of the lovelorn, but it is something so superior that it makes the ambling mobs on Broadway and State Street look like indolent processions on some idle outing."

The history of the Brotherhood of Railway Clerks will be told by Thaddeus S. Dayton. In "How to Invest Your Money," Mr. Thomas will discuss life insurance. In a minutely descriptive article we will tell just how a railroad man's watch is made. There will also be an article on the costliest freight in the world, more "Confessions of a Hobo" (which we regret were crowded off the June section); "Crazy Jim's Ride," a startling true story of L. A. Walworth, and also some hitherto unpublished facts and figures about railroading which are as startling as they are true. We will also publish another bunch of "Our Own Tongue."

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MONOGRAMS engraved as above cost from $7.50 to $13.50, sometimes more at a swell store. But in connection with our anti-trust price offer we are engraving monograms at 50c each. French and dragons $1.50, etc. Write for catalog to get details. The movements of these watches are guaranteed the *best*, equal or superior to those of watches regularly sold at *three times* the price by trust goods dealers—yes three times the price. *Every movement is*

Adjusted to Isochronism A careful adjustment, so that the speed of a watch, when it is fully wound up, is the same when it is almost run down

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Adjusted to Positions Adjusting a watch to positions is adjusting it so it runs the same in various positions. **Not one watch in 200; that is, less than ½ of 1% of even the better grade of watches are adjusted to positions. Only the Very Best.**

19 Jewels used are the finest grade of selected genuine imported ruby and sapphire jewels, absolutely flawless. Ninety-eight of these selected gems protect every point.

Double Jewels—that is, bearings with two jewels each are used in the Burlington. A watch so jeweled requires very much less attention than watches jeweled in any other way

The U Spring Regulator allows adjustments to the smallest fraction of a second

Factory Fitted Every Burlington Special movement is fitted into the case right at the factory where the movement was made, into a case made for that watch. No looseness or wearing of parts against the sides of the case. No rattle or jar.

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Read: It has been decided to make the fight on *trust methods* a fight to the finish. The necessity of throwing off the tightening shackles of trust methods is now admitted. Hence *this offer* to fight the trust we offer direct to the public. Your choice from a line of highest grade watches at *the same price*, the *exact price* that even the *wholesale jeweler must pay*. You get your watch to the penny at the exact price that we have been asking the *biggest wholesale jeweler*. *Take your choice* of the watch you want as per our booklet and help us fight the watch trust method to a standstill

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Without obligating me in any way you may send me free your watch book and full details of your offer.

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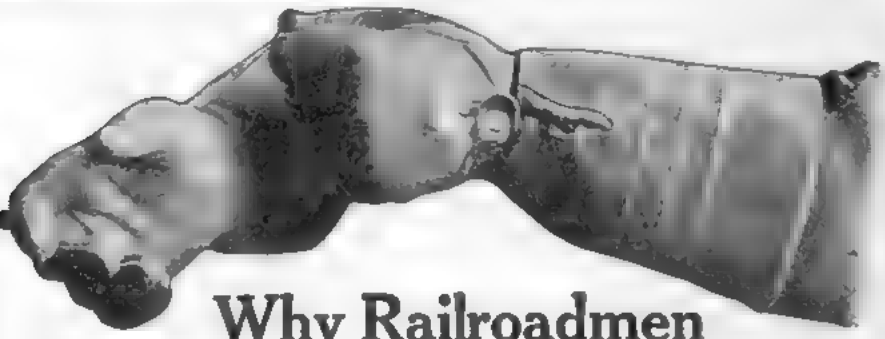

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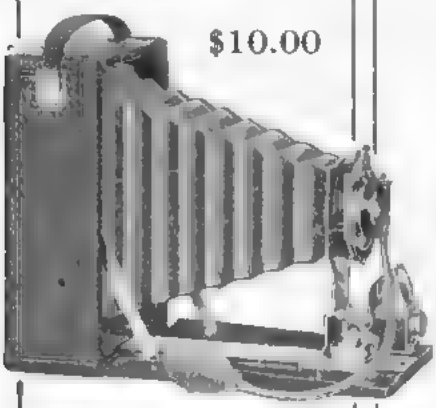

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Begins at the Breakfast Table

The most common table beverages, coffee and tea, contain a drug caffeine which is a nerve poison, irritant, and interferes with digestion.

If you find this to be true in your own family, stop the coffee and tea and use

POSTUM

Well boiled according to directions, it makes a delicious drink resembling fine coffee in color and taste.

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There's a Reason

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The reason is this: They are built like Government Torpedo Boats, of tough, puncture-proof steel plates, pressed to rigid form and so securely joined together that a leak is impossible. The Mullins Steel Boats are *guaranteed* against puncture—leaking—waterlogging—warping drying out -opening seams—and NEVER REQUIRE CALKING.

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We also manufacture a complete line of steel hunting and fishing boats—row boats—cedar canvas-covered canoes.

Our beautiful book, illustrated in colors, is free.

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Famous Yale and Harvard Model Canoes

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LOOKS LIKE A DIAMOND
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A Marvelous Synthetic Gem

The greatest triumph of the Oxy-Hydrogen Furnace. Will cut glass. Stands filing, fire and acid tests like a diamond—guaranteed to contain no glass. Remoh Gems have no paste, foil or artificial backing—their brilliancy is guaranteed forever. One thirtieth the cost of diamonds. Set only in 14 karat, Solid Gold Mountings. Sent on approval—your money cheerfully refunded if not satisfactory.

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Part for part—in accuracy, wear, finish, beauty, material and workmanship, the *ILLINOIS* is *superior to any other Watch at any price.* *Both the makers and we stand back of this Watch with a guarantee that absolutely protects you.* We are one of the largest Watch Distributors in the world. For over 35 years we have sold all kinds of Watches, and honestly tell you that the *ILLINOIS* is the best at any price.

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The famous *ILLINOIS* costs you less than inferior makes. *Nowhere else* can you buy a *genuine ILLINOIS* on credit. No dealer can undersell us even for cash. *Sent on approval*—you take no risk—*pay as you please.*

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FREDDRO WATCH CO., Dept 304, St. Louis, Mo.
Successors to The American Watch Co., of St. Louis.

GENUINE PERFECT CUT LEGALLY GUARANTEED DIAMONDS $97.50 PER CARAT

Pay No Money and we send you a fine Diamond.

The Wonderful Basch Plan

of buying your diamond makes it unnecessary to send any money or references. No delays. Just select any fine diamond and it will be sent **immediately.**

$97.50 per carat is the world's lowest price for genuine brilliant perfect cut diamonds. $97.50 per carat is the **importer's price direct to you** (½ per cent less than wholesale), saving you nearly **half** the price of your retail jeweler. Note these remarkable prices:

¼ carat, **$25.25**; ½ carat, **$47.50**; ¾ carat, **$45.00**; 1 carat, **$97.50.**

Read in our Free Diamond Book how we have cut out the diamond broker, jobber, wholesale and retail jeweler, with all their salesmen, expenses and profits.

No. 312
Basch Solitaire Engagement Ring. Complete with ¼ carat diamond **$48.75**
Same style with 1 carat diamond **$101.25**

The Basch Legal "Money-Back" Guarantees. 'Twill be a pleasing surprise to read about the **written contract** to refund your money any time you wish. Read in our Free Diamond Book how we guarantee the **carat weight**, quality and value of every diamond. Want you be glad to buy a fine diamond when you can secure your money back at any time?

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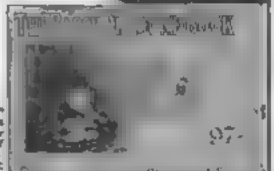
We mail you FREE copy of the complete **Basch Diamond Book** immediately on receipt of your name. It contains full explanation of our low prices and guarantees. It illustrates hundreds of the latest styles in men's and women's rings, scarf pins, cufflinks, shirt studs, brooches, cuff links, lockets, watches and other diamond jewelry.



Send for the big Free Diamond Book TODAY.

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Fine Morning "Eats"

Here are some fine morning Eats for Miss Business.

Here are the Eats that are always ready to serve and that taste delicious.

Post Toasties

—the crisped bits of toasted Indian Corn—delicately browned, wafer-like and appetizing.

Serve them for your breakfast tomorrow morning—and you'll probably serve them again, and again, for—

"The Memory Lingers"

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One Minute Post Cards—

One Minute Profits—

One Minute to Investigate

6-Lb. Portable Post Card Gallery

$581.00 Profit

IN THREE MONTHS

That is what Lopez Diego earned over and above all hotel bills, railroad fares, and other expenses while traveling in Mexico. Browning of Miss., says "Made $16.70 in two hours." William Baker says "Made $35 in 6 hours. It's the thing the people want." J. M. Weidow writes: "I made $10 in only one and one-half hours work." Hundreds of similar letters and reports tell the records of quick, big, easy profits with the

"Mandel" Photo Post Card Machine

A new business of tremendous, immediate and unlimited money-making possibilities. No experience required—no canvassing—no waiting on deliveries to collect profits. Pleasant, healthful, vitalizing, out-door work—all or spare time—traveling or at home. Wonderful, new photographic discovery—a new scientific process—excites interest, arrests attention, compels immediate orders from every onlooker. Big, quick, clean profits at private homes, parties, picnics, on the street, in the country, in small towns, in great cities, at fairs, carnivals, conventions, jollifications, institutes, reunions, etc., etc.—

Photos Direct on Post Cards—No Plates—No Films

A wonderful machine that takes, finishes and delivers three original photo post cards per minute RIGHT ON THE SPOT where you take them. No rent to pay—no profits to divide with anyone. A cash business of pleasure and a great volume of profit. Machine is everything in one—a complete

6-Lb. Portable Post Card Gallery

500% Profit and no Expense. A chance to travel and see the world—make your expenses and a lot of money besides. A new high-class business, representing the opportunity of a lifetime—a chance for any man, young or old, without experience or large capital to own and control a splendid, permanent high grade business, earning from $2000 to $5000 a year profit. Within one week from today, you can, if you will, own such a business and be making that much money over and above all expenses. Write today for complete FREE INFORMATION.

$26 is the Total Investment Required to Start This Big Paying Business of Your Own

Sale of supplies that come to you with Outfit practically gives you back entire investment—and you have the business clear and full established. You begin making money the same day your Outfit arrives. Immediate unusual profits. WRITE RIGHT NOW. Complete information FREE.

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A congenial and profitable occupation. A big demand everywhere. You can learn *at home* to be an expert designer. Names of successful graduates given on request. For full information, without obligation, write today.

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GREAT NOVEL.

"HUGO"

STARTS SERIALLY IN

THE CAVALIER

For Saturday, May 4

"HUGO" is the story of a man with a department store—the [illegible] supreme heights through the originality of his exploits as head of an establishment that would furnish everything from a needle and [illegible] of [illegible].

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10 CENTS A COPY

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The Few Who Will Stay—The Crowd Who Will Go

When the Panama Canal is finished, the few to be retained will be the experts the men on the "gold" pay-roll. The crowd who will go are the 28,536 untrained workers—the men on the "silver" pay-roll.

No more striking example of the relative value of trained and untrained men can be found anywhere than this. Here you see exactly what happens when a large working force is to be reduced The ***trained*** men ***stay***—the ***untrained go.***

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Air Brake Inspector	Chemist
Air-Brake Repairman	Assayer
Mechanical Engineer	Architect
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R. R. Construction Eng.	Stenographer
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Civil Engineer	Automobile Running
Building	Concrete Construction

Name .....

Employed by ..... R. R.

Employed as .....

Street and No. .....

City ..... State .....

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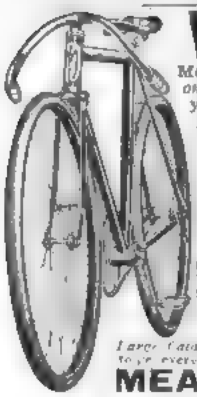

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IN EACH TOWN and district to ride and exhibit a sample 1913 Model "Ranger" bicycle furnished by us. Our agents everywhere are making money fast. *Write at once for full particulars and special offer.* **NO MONEY REQUIRED** until you receive and approve of your bicycle. We ship to anyone, anywhere in the U. S. *without a cent deposit* in advance, *prepay freight*, and allow **TEN DAYS' FREE TRIAL** during which time you may ride the bicycle and put it to any test you wish. If you are then not perfectly satisfied or do not wish to keep the bicycle you may ship it back to us at our expense and *you will not be out one cent.*

LOW FACTORY PRICES We furnish the highest grade bicycles it is possible to make at one small profit above the actual factory cost. You save $10 to $25 middlemen's profits by buying direct of us and have the manufacturer's guarantee behind your bicycle. **DO NOT BUY** a bicycle or tires from *anyone* at *any price* until you receive our catalogues and learn our unheard of *factory prices* and *remarkable special offer.*

YOU WILL BE ASTONISHED when you receive our beautiful catalogue and study our superb models at the *wonderfully low prices* we can make you. We sell cheaper grade bicycles at lower prices than any other factory. We are satisfied with $2 to $5 profit above factory cost. **BICYCLE DEALERS,** you can sell our bicycles under your own name plate at double our prices. Write for our liberal proposition. **SECOND HAND BICYCLES** taken in exchange by our dealers. Retail stores will be closed out at once, at $3 to $8 each. Descriptive bargain list mailed free.

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Learn a Paying Profession

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Our graduates earn $20 to $50 a week. We assist them to secure these positions. Catalog free.

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Window trimming. The ... window ... trimming is taught by the I. C. S. Text-book ... Write to work and ... International Correspondence Schools
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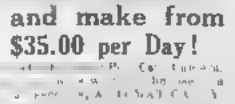
Price 50c each or 3 for $1, postpaid

Why kill yourself by smoking a strong pipe? You can get a Scotch Calabash made of imported clay that absorbs all nicotine and poisons and ensures a cool sweet smoke. Money back if you are not satisfied.



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Profitable Poultry Raising

... increased ... raising from a ... Many ... who know how ... are now ... Let me show you in the ... Poultry Paper ... how to ... Write for ...

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Branch stores: Pittsburgh, Pa. and St. Louis, Mo.

Next time try the effects of the flexibility of the Pro-phy-lac-tic *Flexible Handle* Tooth Brush. It fits every curve and hollow of two rows, so as to prevent that irritation which makes them sweat, bleed and become sore. The tufts of the

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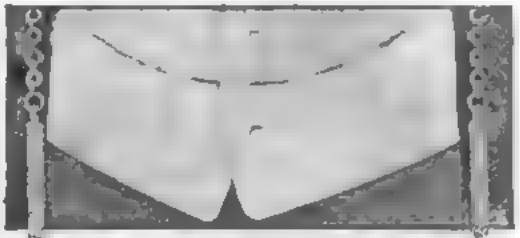
Our interesting booklet "Do you Clean or Brush your Teeth" is yours for the asking, send for it.

FLORENCE MFG. CO.
57 Pine St., Florence, Mass.

25c. 35c. 40c.

Sold [illegible] Toronto and Montreal. Hand made.



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Easy to look at watch. Free use of pencil or cigar cutter

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"I hear you. I can hear now as well as anybody. I owe it to some thing new—THE MORLEY PHONE. I've a pair in my ears now, [illegible] they are invisible. I would not know I had them in, myself only that I hear all right.

"The **Morley Phone** for the

DEAF

made now sounds and whispers plainly heard. Invisible, comfortable, weightless and harmless. Anyone can adjust it." Over one hundred thousand sold. Write for booklet and testimonials.

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The Tree System—The Bell System

A NOBLE tree thrives because the leaves, twigs, branches, trunk and roots are all working together, each doing its part so that all may live.

Neither the roots nor the branches can live without the other, and if the trunk is girdled so that the sap cannot flow, the whole tree dies.

The existence of the tree depends not only on the activity of all the parts, but upon their being always connected together in the "tree system."

This is true also of that wonderful combination of wires, switchboards, telephones, employes and subscribers which helps make up what is called the Bell Telephone System.

It is more than the vast machinery of communication, covering the country from ocean to ocean. Every part is alive, and each gives additional usefulness to every other part.

The value of telephone service depends not only on the number of telephones, but upon their being always connected together, as in the Bell System.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
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One Policy ***One System*** ***Universal Service***

The Genuine has this Label

"Imitated but not Duplicated"

Insist on Getting GUARANTEE

TRADE MARK

"Porosknit"

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FABRIC PAT. DEC. 12, 1905 — DESIGN PAT. 1905

and is **Guaranteed**

Chalmers Guarantee

If, in your opinion, this garment, labeled as below,

Be Sure It Has This Label

"Porosknit"

It Means Genuine "Porosknit"

fails to give you its cost value in underwear satisfaction, return it direct to us and we will replace it or refund your money, including postage. This guarantee applies to every genuine "Porosknit" garment not stamped "Seconds" or "Imperfect" across the "Porosknit" Label.

Chalmers Knitting Company, Amsterdam, New York

Handled by Good Dealers Everywhere

The "Porosknit" guarantee has *no conditions* or time-limit. This means that there is such *quality* in genuine "Porosknit"—the best materials possible, the utmost care in making, durability, true fit and comfort—that we, the makers, can stand back of each garment with the *absolute warranty* of "satisfaction, or your money back."

This is unanswerable proof of how good is genuine "Porosknit."

Accept no imitation—remembering that none but the genuine can have the real "Porosknit" label, as shown here. Look for the Guarantee Bond with each garment.

"Porosknit" UNION SUITS are the maximum of comfort—no bulging at waist line—easy to button—stay buttoned. **Light, Cool and Elastic.**

For MEN **50c** Any Style Shirts and Drawers per garment

For BOYS **25c**

Union Suits—Any Style: For Men **$1.00**; For Boys **50c**

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CHALMERS KNITTING COMPANY, 43 Washington Street, Amsterdam, N. Y.

R.M.

Here's the soup that builds brawn and brain.

A wholesome, nourishing food in itself, it also aids the digestion of all other foods. And, as a great editor said recently referring to Campbell's Soups "*Your digestion makes you what you are.* Soup is an economical food," he added. And this is particularly true of

Campbell's BEEF SOUP

Beside its strong, rich beef stock, this hearty soup contains plenty of good juicy meat which has not been used for stock; and carrots, turnips, barley and fine herbs.

It is just the introduction you want to help out a slender menu at any time. And a plate or two with bread and butter makes a sustaining light meal in itself.

Order at least half-a-dozen at a time.

21 kinds 10c a can

"These soups
are ever
What make
me clever
To guard this
wicket of mine.
And the only bowl
That can reach its goal
Is a bowl of this
soup so fine".

Asparagus	Clam Chowder	Pea
Beef	Consommé	Pepper Pot
Bouillon	Julienne	Printanier
Celery	Mock Turtle	Tomato
Chicken	Mulligatawny	Tomato-Okra
Chicken-Gumbo (Okra)	Mutton Broth	Vegetable
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Look for the red-and-white label

R12

"Have You a Little 'Fairy' in Your Home?"

White—First, Last and All the Time

Fairy Soap is white—and stays white to the last wafer of the cake. That's simply because it is made from choice edible products. Other so-called white toilet soaps turn yellow with age, because they do not contain as high-priced ingredients as Fairy. This pure, white, floating, handy, oval cake of soap goodness costs but 5c.

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SHAVING LATHER

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